

Product Catalog



- **1** Solutions
- 4 Support, Training and Services
- **7** Star Partner Program
- **8** Switches
- 30 iMAP and iMG
- **36** Media Converters
- **43** Optical Modules
- 46 Network Interface Cards
- 53 Routers
- **56** Wireless
- 63 Network Management
- 66 Index

Our Commitment to Excellence

Known for **reliability**

Chosen for quality

Recognized for innovation

Allied Telesis is a world-class leader in delivering IP/Ethernet network solutions to the global marketplace. We create innovative, standards-based IP networks that seamlessly connect users with their voice, video and data services.

Publicly traded in Japan and with major corporate divisions in Europe, Asia and the Americas, Allied Telesis is a truly international company ready to service, support, and supply a globally connected customer base of diverse enterprises, organizations and governments. Our partners include the world's largest distributors, integrators, solution providers and resellers to assure you receive immediate local service and support.

Our solutions are used in a wide variety of complex networking applications, and optimized for very demanding and highly specialized markets such as healthcare, IP surveillance, hospitality, the military and public utilities, to name but a few. Because we provide world-class quality and performance at prices suited to budgets facing a challenging world economy, Allied Telesis has become the default standard for many of today's critical network operations.

Our worldwide research and development centers work to bring you innovative products that help your company succeed. We also operate state-of-the-art production facilities, compliant with the world's most-stringent environmental policies, manufacturing more than 600 different products every month, and shipping globally.

As a major industry manufacturer, Allied Telesis is committed to providing you with solutions comprising products designed and built to the highest-possible standards and quality. Our manufacturing conforms to appropriate ISO 9000 standards, and all of our facilities adhere to the strict ISO 14001 standard to ensure a healthier world environment.

Allied Telesis has been designing, manufacturing and selling networking products for nearly a quarter of a century. Our solution-based philosophy of producing products of the highest quality, at affordable prices, with extensive service and support, has resulted in Allied Telesis products being deployed in networks of all types and sizes around the world. Our proven track record of solid technology, excellent support and full-featured software and hardware has allowed Allied Telesis to become a worldwide de-facto standard in many areas of network technology. With a portfolio of products providing end-to-end networking for service provider, enterprise and SMB customers, Allied Telesis is the natural choice for many world-class organizations.

As a leading provider of networking infrastructure, Allied Telesis today enables efficient and reliable delivery of voice, video and data services. The Company is committed to innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

Allied Telesis Solutions

alliedtelesis.com/solutions

Over our 24-year history, Allied Telesis has provided products and services to virtually all major vertical industries. We have had particular strongholds in the government, defense, education, service provider and MDU/MTU markets.

In recent years, we have seen a shift in the way customers purchase. They are moving from a pure product and technology focus toward an emphasis on the value their network solutions provide in enabling them to achieve business goals. Customers now want to justify their network purchasing in terms of its ability to help increase revenue, decrease cost and increase productivity within their organization rather than on "feeds and speeds."

The edge of the network, which connects the outer reaches of an organization like operational personnel, customers and even physical devices, is increasingly becoming the focal point for both cost reduction and enhanced productivity. Video images and video communications are also beginning to overtake data and voice as the key drivers of bandwidth and network configuration requirements.

With our extensive experience in moving video packets for the carrier market and our expertise in designing ruggedized, temperature-sensitive products for defense, FTTH and industrial clients, Allied Telesis is well-positioned to help customers in key industries that are undergoing major market transformation and/ or government and regulatory-driven changes. We are developing targeted horizontal solutions, together with leading technology partners, to extend the network and push intelligence and especially video to the edge of the network.

Healthcare

Advances in voice, video and data networking can make medical professionals faster, more accurate and more patient-friendly. Our solutions keep you compliant with privacy regulations and help open

up new opportunities for both patient care and broadband "to-the-pillow" services, including audio and Internet services, pay-per-use channels and Video-on-Demand (VoD). With several key partners and applications in the Picture Archiving and Communications Systems (PACS) area, the increasing need to reliably and quickly transmit high-bandwidth medical data is being fully enabled with Allied Telesis technology.

Allied Telesis is the industry leader in providing cost-effective, reliable, secure IP network solutions. Hospitals and medical facilities around the world use Allied Telesis networking solutions

to improve patient care, enhance productivity, reduce costs, ensure data security and improve in-building safety using advanced IP surveillance technologies. With our long history of partnering with government and healthcare

organizations, Allied Telesis is adept at guiding medical providers through the often-complex world of grants and legislative mandates while simultaneously providing the network systems critical to the success of healthcare facilities'



adoption or expansion of vital diagnostic and administrative solutions. We are currently developing healthcare solutions and architectures through technology partnerships with leading suppliers

in the PACS, telemedicine, bedside concierge and video surveillance/physical security arenas.

Video Solutions

There are many different means of video traffic — from low-quality webcams to high-end HD video or even 3D video. Video is a fast-growing market with increasing business importance for numerous applications and markets. High-demanding HD video requires optimized network architectures to provide high-quality output and to scale to very large networks with thousands of end points and simultaneous video streams. Allied Telesis is uniquely

positioned to provide high-performance networks for HD video applications. Allied Telesis is currently working with partners in the healthcare arena to enable the transport of real-time, interactive

3D video streams that do not require the use of 3D glasses. We believe that this is the world's first demonstration of this auto-stereoscopic 3D traffic being transported in real-time over the network.



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Solutions

Education

High-bandwidth, secure networks help deliver advanced teaching and communications tools that benefit students, teachers and administrators through virtual online classrooms, remote access to teaching specialists and automated attendance programs. Our high-performance, multi-layer switching

solutions provide intelligent, scalable and reliable connectivity from 10Mbps to 10Gbps.

Allied Telesis has partnered with highereducation and primary institutions across the

globe to provide secure connectivity, wireless, video surveillance and other network solutions. We understand the need to supply advanced cuttingedge network services to tomorrow's generation, within limited budgets. Allied Telesis has implemented leading-edge educational networks for many years. Our advanced high-value product portfolio provides the security, mobility and high performance you need for your education network, both now and well into the future.

Physical Security

The quickly growing IP video surveillance market is found in a multitude of business and organizational premises worldwide, from airports and shopping malls to corporations and hospitals. Historically, camera-makers, video server management companies, software analytics providers and low-voltage resellers and integrators have partnered together to provide complete solutions. As cameras switch from analog to digital and as traffic is transported via IP protocol, the network itself is becoming one of the most critical elements of success.

Allied Telesis offers a unique and diverse portfolio of products and solutions, bolstered by a robust set of features, that enhance the ability to securely and reliably transport security video across a network. Our products ensure video

> is secure and available, ready to be viewed wherever and whenever needed.

Additionally, other buildingrelated devices, like access control, building automation and even lighting, are becoming Ethernet/IPenabled, Allied Telesis looks

at video surveillance as the entry point into the building facilities groups and will be developing partnerships with other vendors as well as end-users to address the growing need for coordination and control of building systems.

Industry and Public Utilities

Industrial networking has its own unique set of requirements, demanding products and solutions that ensure

reliable, fail-safe operation. An industrial environment requires the highest reliability while facing unique challenges: EMI and radio interference, contaminants and long cable runs. Military, manufacturing and

utility organizations often require solutions that can withstand high and low temperatures, vibration and other challenging environmental conditions. Many utilities and municipalities also are investing in technology to deliver backbone services over their fiber

plant to local communities and private businesses.

Allied Telesis has worked with numerous industrial companies and utilities in North America and Europe to help them build-out broadband service provider networks to residential customers. We are increasingly working with those same customers now to connect their substations, to explore Broadband over Power Line (BPL) and to connect them to residences for their smart grid initiatives.

Allied Telesis offers a range of solutions that meet these requirements, based on fiber, copper and wireless technologies. Our IP/Ethernet solutions, which include media converters, managed switches and NICs, can help you — we've designed them to be resilient, easy to install and manage. Our managed switches can be configured to take a recovery action if a connection is lost, as well as alert you to the problem. Our media converters are critical components in a network, carrying data between sites or over long distances. Most of our media converters can

> be deployed with hotswappable power supplies to ensure maximum uptime for your network.

The iMAP and iMG product lines, in particular, have been hardened and are temperature-sensitive due to the stringent NEBS

requirements of many of our service provider customers. These products, plus hardened media converters and other switches, are well-suited to the industrial and utility markets.



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Data Center

Communications in data centers today are most-often based on networks running the IP protocol suite. Data centers contain a set of routers and switches that transport traffic

between the servers and to the outside world. Redundancy of the Internet connection is often provided by using two or more upstream service providers.

Allied Telesis is uniquely positioned for the mini and small data center. We are the only network manufacturer that provides a solution from Network Interface Cards (NICs) to aggregation products.

Through our unique NIC products, we support virtualization which has become the most important technology and trend for the data center.

Our products support a unique mix of copper and fiber interfaces of all speeds from IOMbps to IOGbps. With scalability, the network can grow as the business of our customers grows. Software and hardware features provide highest availability.

Transportation

Transportation network systems from Allied Telesis provide high-bandwidth real-time communication with moving vehicles, broadband access to passengers, video security of public vehicles, facilities and infrastructure, as well as monitoring of environmental conditions and traffic control. Our compatibility with credit card authorization allows implementation of remote ticket machines, in parking facilities as well as train and bus stations.

Allied Telesis solutions are also ideal in facilitating the management of highways, motorways and toll roads. Allied Telesis solutions are well suited to support the implementation of electronic signs, live video feeds, centralized traffic

signal control, vehicle counting systems, ramp monitoring systems and driving conditions. Proper implementation of these traffic control and monitoring systems will result in reduced traffic congestion, lower accident rates, reduced

pollution and faster emergency response times.

By meeting a growing demand from business and residential tenants for bundled voice, video and data services, you can profitably compete with incumbent telephone and cable operators to offer services in your multi-dwelling or multi-tenant units. Our IP/Ethernet solutions help you efficiently consolidate access traffic and offer scalable high-speed services to the residents and companies who share your buildings.

Allied Telesis designed its platforms for IP video and Triple Play from the start. Rather than relying on routers or equipment back in the network to perform multicast and video control, Allied Telesis incorporates IP Triple

Play functionality into the software residing on our Layer 2 and 3 switches, iMAP integrated Multiservice Access Platforms, and iMG intelligent Multiservice Gateways. As a result, Allied Telesis became the first platform commercially deployed for IPTV service, and today has hundreds of service

providers worldwide providing IP Triple Play services to more than a quarter million subscribers. This experience and expertise is applied to delivering the highest-quality IP video security, medical imaging (PACS) and over-the-top streaming video to government, education, healthcare and many other industries around the world.



IP Triple Play

Competitive carriers can differentiate themselves by deploying IP Triple Play services that provide voice, video and data via one access line, together with deployment of fiber optics for the infrastructure. Our residential service gateways provide true end-to-end differentiation for IOCs, versus legacy ATM/TDM solutions. Together, they make a compelling combination.

Support

110110010101101110011001001001 Global Support Services

alliedtelesis.com/support

Allied Telesis offers services and support programs to protect your network infrastructure investment. These services are designed to enhance the coverage offered by Allied Telesis warranties.





Online Support Anytime alliedtelesis.com/support Allied Telesis Net.Cover® is a flexible set of services and support programs that can be tailored to meet the needs of a wide range of customers who wish to take additional precautions to safeguard the integrity of networked data, ensure network up time and maximize enduser productivity while protecting their original investment well into the future. These service programs provide comprehensive coverage for your purchase, including advanced hardware replacement and access to no-charge telephone support.

Net.Cover service programs may also include:

- » Online knowledge base
- » Priority queuing and escalation
- » Software updates with proactive change notification
- » Configuration assistance
- » Hardware replacement performed by Allied Telesis field engineer
- » Next business day advanced product replacement

	COVERAGE HOURS	ON-SITE SUPPORT	SOFTWARE UPDATES	RMA SHIPMENT METHOD
STANDARD PRODUCT WARRANTY		No		Repair and return
NET.COVER BASIC	Business hours	No	Yes	Repair and return
NET.COVER BASIC PLUS	Business hours	No	Yes	Same business day*
NET.COVER BASIC ADVANCED	Extended hours	No	Yes	Same business day*
NET.COVER SILVER	Business hours	Yes – next business day	Yes	Spares located on-site with engineer
NET.COVER GOLD	Business hours	Yes – within four business hours	Yes	Spares located on-site with engineer
NET.COVER PLATINUM	Extended hours	Yes – within four hours	Yes	Spares located on-site with engineer

Renewable Net.Cover contracts run for one, three or five years. Custom contracts are available upon request.

^{*}Not all contracts and services are available in all countries. Please contact your local sales office for further information.

Training

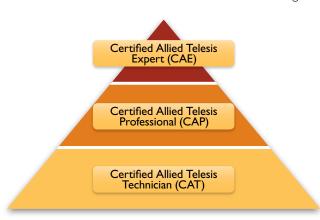
Global Training Program

alliedtelesis.com/training

Allied Telesis offers a comprehensive solutions training program.



Allied Telesis offers a suite of training certification courses at several locations across the United States and Europe. Our curriculum includes basic network and sales training courses along with courses designed to prepare you to become a certified Allied Telesis engineer.





Learn More alliedtelesis.com/training

NORTH AMERICA na_training@alliedtelesis.com

training.eu@alliedtelesis.com

Classroom Training

The Allied Telesis suite of classroom training is tailored to the entry-level knowledge of attendees, from the technician up to expert level. Training courses include several labs and hands-on exercises, providing technically-skilled personnel with the knowledge to achieve a smooth project rollout and gain the expertise needed in maintaining Allied Telesis and multi-vendor networks in a professional manner. The certification path is split between Allied Telesis Enterprise and Network Service Provider solutions and products.



Become a Star Partner

Learn about the Allied Telesis Star Partner Program on page 7.

Adventure-based Learning

Experience a new way of learning! One of the special benefits offered to you as an Allied Telesis Star Partner is access to our new innovative training tool. You now have access to obtain sales and pre-sales accreditations online by taking part in our very own virtual world. This innovative tool offers you an interactive hands-on approach that includes virtual role-plays to increase your motivation as well as product and solution knowledge.

Autumn 2011 | 5 the solution: the network

Services

11011001010110110110010010010010 Professional Services

alliedtelesis.com/services





In today's world of highly complex voice, video and data networks, finding the best product is only one key to designing the best network. Other key factors include skilled personnel, lab and test equipment, time to deployment and capital expense costs. They add up to a large investment in deploying and maintaining an efficient network.

Allied Telesis has assembled a team of highly trained, experienced network engineers and project managers to help you design, integrate, deploy and manage increasingly complex converged IP networks.

Learn More alliedtelesis.com/services

We have a successful track record in managing, integrating and deploying large and small voice, video and data networks across a variety of market segments. From

service providers to enterprise applications, campus networks to OEM partners, we understand your need for carrier-grade products, seamless, error-free integration and best-in-class service and support. We provide a flexible suite of options for network design, configuration, interoperability testing, implementation and management and ongoing network training and maintenance.

Allied Telesis Professional Services Solutions provide many benefits for your business. We use proven, tested gate and acceptance processes that ensure a smooth initial deployment, error-free integration and seamless change management.

Advantages

- » Efficient deployment of equipment and resources
 - Increased productivity and performance
 - Quick time to deployment and services turn-up
 - Lower overhead, reduced maintenance and lower cost of ownership
 - Improved ROI
 - Lower support costs
- » Deployment of proven, scalable design
 - Experts in telephony and IP/ Ethernet technology
 - Experienced in complex IP Triple Play deployment projects
 - Experienced with multi-vendor network rollouts
 - Industry best-practice experts
 - Direct access to the manufacturer

Services Offered

- » On-site network support and configuration
- » Turn-key installation and commissioning
- » Network consultation
- » Remote monitoring services
- » Multi-vendor network integration
- » Hardware/software installation and configuration
- » Off-site (remote) network support and configuration
- » Project management
- » Network assessments and reporting
- » Staff augments and operational support
- » Product staging prior to shipment

Partners

Star Partner Program

partnerportal.alliedtelesis.com

Success is built on relationships, and relationships are built on trust. The Allied Telesis Star Partner Program provides the ideal communication vehicle to the channel, providing all the ingredients for success in business. By joining the Star Partner Program today, Allied Telesis Partners work with the leading networking vendor, enabling them to be more successful in a highly competitive industry.

Why Allied Telesis?

Our approach is different: Allied Telesis works diligently with you, as a team, to understand your business goals and support new solutions for expanding markets. Our partners receive the training, dedicated support and tools that will help you grow and succeed.

Our goal is to support your business objectives and promote customer satisfaction and loyalty. In support of these goals, the Allied Telesis Star Partner Program provides a clear and direct communication channel that encourages ongoing relationships.

Business benefits come from the competitive differentiation that Allied Telesis comprehensive networking products and solutions offer.

Allied Telesis high-performance products are trusted within the networking industry because they easily accommodate the demands of today's high-bandwidth applications, including voice and video. No other manufacturer matches the Allied Telesis combination of cutting-edge technology, exacting quality standards, rich feature sets, competitive pricing and selection.

Membership tiers are based on purchase volume and training certification thresholds.







Discover the benefits today

Whether you sell Allied Telesis totalsolution offerings or build your own with our high-quality, easily customized and well-supported products, partnering helps your company extend its market reach. Partnership also enables you to offer customers technology that will scale through every phase of their development. Through the Allied Telesis Star Partner Program, you gain critical benefits in getting solutions to market and positioning them to customers. The Allied Telesis Star Partner Program is quick, easy and free to join and you can immediately start to take advantage of these great benefits:

- » Dedicated Sales Representative coverage
- » Tiered membership levels feature increasing discounts and Net.Cover Professional Services

- » Valuable information on Allied Telesis products and solutions to help you understand the competition and to bid the correct solutions for your users' requirements
- » Customized campaigns and solution programs to fit your business needs, including Allied Telesis business and technical collateral
- » Lead generation that targets an identified market segment
- » Priority project assistance and technical support for your project business via the Allied Telesis Project Registration tool
- » Free online training through Webinars, Adventure-Based Learning and classroom training to keep you up-to-date on new products, strategies and solutions.

Learn More

For more information about the Allied Telesis Star Partner Program, please register via the online Partner Portal

partnerportal.alliedtelesis.com





Allied Telesis engineers high-performance, high-quality, future-proof products to meet all of your cutting-edge voice, video and data networking needs, without breaking your budget. From unmanaged and WebSmart switches to Layer 2 and Layer 3 switches, our strength is in producing efficient, streamlined, powerful products that will last for the life of your network and deliver the highest-possible return on your investment.

Fast, Gigabit and 10 Gigabit

Allied Telesis advanced Fast, Gigabit and 10 Gigabit Ethernet Layer 2 and Layer 3 switches are an ideal solution in the aggregation tier of large networks, for server farms, data centers or small and medium businesses. A robust hardware design gives you maximum uptime of critical services and reliability.

Stackable

Allied Telesis stackable switches offer chassis-like availability and resiliency, allowing management of the stack as a single, large virtual switch while providing fast inter-switch connectivity. Stackable switches offer a cost-effective and scalable switching solution for your network.

Power over Ethernet

Traditional switches deliver data to their connected devices. Allied Telesis PoE switches add an extra dimension — they also provide power to wireless access points, IP phones and IP security cameras, and other connected devices. All Allied Telesis PoE switches meet the IEEE 802.3af or IEEE 802.3at industry standards, which helps to ensure seamless interoperability with other PoE devices.

IPv6 Management

Allied Telesis switches support IPv6, ensuring that infrastructure installed today



will support the networks for the future. With the number of global IPv4 addresses about to be exhausted, investment today with IPv6-ready equipment is a necessity.

VLAN Double Tagging (Q-in-Q)

VLAN double-tagging can be useful for customers such as Internet Service Providers (ISP), allowing them to use VLANs internally while mixing traffic from clients that is already VLAN tagged. The first VLAN tag is used by the ISP to route traffic across their own network, while the second VLAN tag is that of the end-user customer. The use of this feature allows end-users to have physically distributed networks, which they can manage themselves, carried over an independent infrastructure.

IEEE 802.1x Authentication

This protocol uses an authentication server to store details of each user who has been granted access to the network. The authentication criteria can be a computer MAC address, but can also include IP address, username and password etc. Initially, the switch port will be blocked, but when a computer connects, it will only be connected to the authentication server. If the request to access the network is granted, then the switch will be programmed with the necessary details, such as VLAN membership. This type of security simplifies the task of the network

administrator. They can keep all of their security data on a server and not have to program each switch. This scenario has the added benefit of allowing users to connect to any port on the network.

Voice VLAN

Voice VLAN segregates VoIP traffic from Ethernet traffic and applies it to a higher QoS. This ensures high voice quality for phone conversations, as voice and data traffic share the same switch and Ethernet ports. It protects time-sensitive voice traffic from being flooded by other data traffic, such as multicasts and broadcasts.

sFlow

sFlow is an industry-standard technology for monitoring high-speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting and billing for usage and defense against security threats. Sampled packets sent to a collector ensure it always maintains a real-time view of network traffic.

eco-friendly

Allied Telesis switches featuring the eco-



friendly logo have been designed to operate at significantly lower power than traditional switches. This not only reduces environmental impact, but also reduces the operational running costs of the switch.

NEW FOR 2011

8100L Series

AT-8100L/8 and AT-8100L/8POE switches offer 8 10/100TX ports and two Gigabit combo ports.

8100S Series

AT-8100S/24 and AT-8100S/24POE switches offer 24 10/100TX ports, two Gigabit combo ports, plus two integrated dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

The AT-8100S/48 and AT-8100S/48POE switches offer 48 10/100TX ports, two Gigabit combo ports, plus two integrated dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

The AT-8100S/16F8-SC, AT-8100S/24F-LC and AT-8100S/24F-BiDi switches offer fiber connectivity with two Gigabit combo ports, plus two dedicated stacking connectors that deliver a total of 10Gbps stacking bandwidth to each switch.

Power over Ethernet

PoE models provide standards-based IEEE 802.3at (30W) Power over Ethernet. PoE+ provides greater power for applications—such as IP surveillance cameras supporting pan, tilt and zoom, IP video phones, RFID readers or wireless access points—while maintaining backward compatibility with IEEE 802.3af.

Hardware Stacking

The stacking capability integrated into the 8100S Series is configured as a resilient ring topology designed to provide high reliability and simplified management for higher port density applications. Up to eight switches of either 24 or 48 variants can be stacked together using HDMI cables, providing up to 384 ports of Fast Ethernet connectivity, manageable as a single IP entity.

Management Stacking

The 8100L and 8100S Series support Enhanced Stacking, providing CLI-based management of up to 24 switches with the same effort as for one switch. The Allied Telesis solution uses open standards Ethernet interfaces as stacking links so that many switches within the same LAN can be managed remotely as a single IP entity across different sites.

The Allied Telesis 8100L and S Series provide high-performance Layer 2–4 switching in an affordable fixed configuration platform.

Easy Access Networking

Featuring the industry-standard CLI of AlliedWare Plus™ and Allied Telesis' intuitive yet fully featured Web interface, the advanced switch features are accessible to a wide range of system administrators. The well-known CLI and Web interfaces significantly reduce learning time and minimize the cost of deployment.

Gigabit and Fast Ethernet SFP Support

All switches in the Series support both Gigabit and Fast Ethernet Small Form-factor Pluggables (SFPs). This makes the 8100L and S Series an ideal family for environments where Gigabit fiber switches will be phasedin over time. These series of switches allow for connectivity to the legacy IOOFX hardware until it is upgraded to Gigabit. Support for both speeds of SFPs allows organizations to stay within budget as they migrate to faster technologies.

Redundant Power Options

The 8100S Series features two internal power supplies as standard, ensuring continuous switch operation of both the switch and the PoE power — even in the event of a power supply failure. 8100L Series switches support one internal power supply. 8100S Series (non-PoE) can be ordered with DC power supplies as variants to the standard product.

eco

POE eco



8100L and 8100S Series

LAYER 2-4 FAST ETHERNET SWITCHES

Low Power Consumption

The AT-8100L/8, AT-8100S/24C, AT-8100S/24 and AT-8100S/48 products are designed for silent operation, allowing use in office environments and wiring closets.

IPv6-Aware Switch

The 8100 Series functions as an Layer 2 switch in a pure IPv6 network as well as in a combined IPv4/IPv6 network. The system is capable of bridging Ethernet packets encapsulating IPv6 frames, similar to IPv4 frames. The system follows the transmission of IPv6 packets over Ethernet networks. No user configuration is required — IPv6 packets are bridged regardless of extension headers.







			8100S	SERIES			
AT-8100S/24C	AT-8100S/24	AT-8100S/24P0E	AT-8100S/48	AT-8100S/48P0E	AT-8100S/16F8-SC	AT-8100S/24F-LC	AT-8100S/24F-BiDi
» Desktop » Rack mountable » Wall mountable	» Desktop» Rack mountable» Wall mountable	» Desktop » Rack mountable » Wall mountable	» Desktop» Rack mountable» Wall mountable	» Desktop» Rack mountable» Wall mountable			
Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4	Layer 2-4
24	24	24	48	48	8		
2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)
					16 SC, MMF	24 LC, MMF	24 BiDi, SMF
2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)
2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI
Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal
			•				
	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal
		24		48			
		12		12			
		24		24			
		В		В			
		380W		380W			
16K	16K	16K	16K	16K	16K	16K	16K
(8)	(8)	■ (8)	(8)	■ (8)	(8)	(8)	■ (8)
Fanless	Fanless	Low noise fan	Fanless	Low noise fan	Low noise fan	Low noise fan	Low noise fan
0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C
		•			•	•	
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8	8	8	8	8	8	8	8
256	256	256	256	256	256	256	256
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33 x 22.8 x 4.3 cm 13 x 8 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in	44 x 29.1 x 4.3 cm 17.34 x 14.46 x 1.72 in
2.15 kg/4.75 lb	3.62 kg/8.1 lb	4.96 kg/10.98 lb	4.03 kg/8.9 lb	5.42 kg/11.95 lb	4.12 kg/9.10 lb	4.42 kg/9.75 lb	4.24 kg/9.35 lb

NEW FOR 2011

Flexible Connectivity

With a choice of 24-port and 48-port versions with optional PoE+ and multiple 10 Gigabit uplinks, plus the ability to stack up to eight units, the x610 Series can connect anything from a small workgroup to a large business. Expansion modules are available for local and long-distance stacking or can be configured to provide two additional 10 Gigabit ports. PoE+ models are equipped with hot-swappable power supplies, which allow easy maintenance and ensure that the most appropriate sized power supply can be selected to suit any application.

The Allied Telesis x610 Series is a high performing and scalable solution for today's networks, providing an extensive range of port-density and uplink connectivity options.

Virtual Routing and Forwarding (VRF Lite)

VRF Lite provides Layer 3 network virtualization by dividing a single router into multiple independent virtual routing domains. With independent routing domains, IP addresses can overlap without causing conflict, allowing multiple customers to have their own secure virtual network within the same physical infrastructure. VRF Lite also enables more efficient use of network resources by allowing different virtual routing domains to access resources in a single shared common domain, within a tightly controlled security model.

Long-Distance Stacking

Long-distance stacking allows units that are geographically separated to form a VCStack. Now fast-failover resiliency and ease-of-management are available to a distributed networking environment. Long-distance stacking delivers all the benefits of VCStack using high-speed links to form a distributed stack, with the added advantage that over short distances, low-cost cables can be used in place of expensive optics.

SUBCATEGORY	FEATURE
FORM FACTOR	
SWITCH FUNCTIONALITY	
	10/100/1000T
PORTS AND MEDIA SUPPORT	SFP
WILDIA GOFF ON I	Fixed 10GbE ports
	Modular 10GbE ports (AT-x6EM/XS2)
	PSU type
	-48vDC PSU option
POWER SUPPLY	Redundant PSU option
	Redundant PSU chassis
	Additional redundant PSU
	IEEE 802.3at
DOWED OVED EXILED-:	PoE-enabled ports
POWER OVER ETHERNET	Max full power ports (using AT-PWR800)
	Max full power ports (using AT-PWR1200)
	MAC address table size
SCALABILITY	Stacking (VCStack)
	Long-distance VCStack
	Front-to-back cooling
ENVIRONMENTAL	Temperature range
	Web
MANAGEMENT	CLI / Telnet / SNMP
	IPv6
	Spanning Tree
	Link aggregation (LACP)
NETWORK RESILIENCE	EPSR
	VRRP
QoS	IEEE 802.1p priority queues
	IEEE 802.1Q VLANs
	RADIUS / TACACS+
SECURITY	SSH / SSL
	IEEE 802.1x
	DoS protection
	RIPv1 and v2
	RIPng
ROUTING	OSPFv2 (IPv4)
	OSPFv3 (IPv6)
	VRF Lite

Weight (unpackaged)

Expansion Modules



» AT-x6EM/XS2 Expansion module (2 x SFP+) for long-distance stacking or two additional IOGbE ports



» AT-StackXG Stacking module for the x610 Series, including 0.5m stacking cable

Power Supply Accessories



» AT-RPS3000 Chassis for up to two redundant power supplies



» AT-PWR250 Additional 250W AC or DC system power supply



» AT-PWR800 Additional 800W AC system and PoE+ power supply



» AT-PWR1200 Additional 1200W AC system and PoE+ power supply

12 | Allied Telesis Product Catalog







PoE plus

PoE plus





Switches

Unmanaged switches are simple to deploy, as they require no user setup — making them the ideal product for Small Office, Home Office (SOHO) applications. Their silent and eco-friendly low-power operation ensure both minimal running costs and no intrusive noise.

Auto-Negotiation and Auto MDI/MDI-X

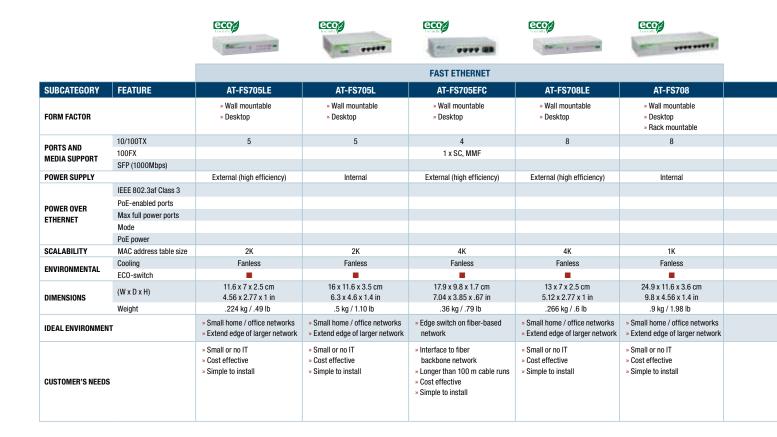
Allied Telesis unmanaged copper switch ports support auto-negotiation and auto MDI/MDI-X, enabling them to interface with legacy Ethernet and Fast Ethernet products without the need for special cables or user configuration.

Fanless Design

All Allied Telesis unmanaged switches feature a fanless design. This quiet operation makes them perfectly suited for use in home and small office installations.

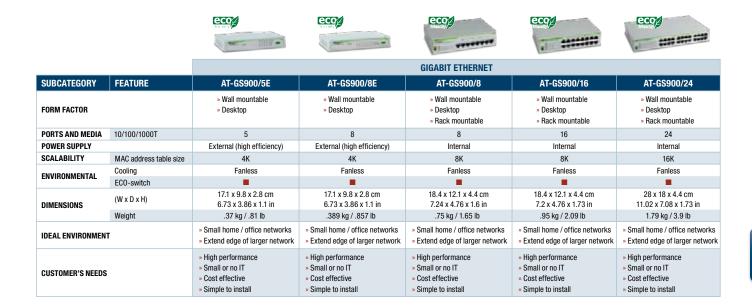
Allied Telesis eco-friendly models use a variety of methods to reduce power, helping protect the environment and reducing energy costs. All our eco-friendly models use highly efficient power supplies, which reduce generated heat. Ethernet ports which are inactive are placed into power-saving mode, and active ports measure the distance of the attached cables to drive the correct amount of power. These improvements result in 50% less power consumption than previous models.





14 | Allied Telesis Product Catalog

Unmanaged Switches



POE		eco		eco		
********	***************************************	: :::::::	-	,		
		FAST ETHERNET				
AT-FS708/P0E	AT-FS709FC	AT-FS716L	AT-FS717FC/SC	AT-FS724L		
Wall mountableDesktopRack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable» Desktop» Rack mountable	» Desktop » Rack mountable	» Wall mountable» Desktop» Rack mountable		
8	8	16	16	24		
	1 x SC, MMF		1 x SC, MMF			
1						
Internal	Internal	Internal	Internal	Internal		
•						
8						
4						
Α						
65W						
8K	4K	8K	4K	8K		
Fanless	Fanless	Fanless	Fanless	Fanless		
•						
26.5 x 16.2 x 4.3 cm 10.4 x 6.4 x 1.7 in	22 x 12 x 3.6 cm 8.66 x 4.72 x 1.4 in	18.4 x 12.4 x 4.4 cm 7.24 x 4.88 x 1.73 in	29.5 x 11.5 x 4 cm 11.61 x 4.52 x 1.57 in	28 x 18 x 4.4 cm 11.02 x 7.08 x 1.73 in		
1.9 kg / 4.20 lb	2 kg / 4.4 lb	.8 kg / 1.76 lb	.93 kg / 2.05 lb	1.592 kg / 3.51 lb		
» Small office network with wireless, IP cameras	» Edge switch on fiber-based network	» Small office network	» Edge switch on fiber-based network	» Small office network		
» Ability to power wireless access points, cameras, etc. » Interface to fiber backbone network » Longer than 100 m cable runs » Cost effective » Simple to install	Interface to fiber backbone network Longer than 100 m cable runs Cost effective Simple to install	» Small or no IT » Cost effective » Simple to install	Interface to fiber backbone network Longer than 100 m cable runs Cost effective Simple to install	» Small or no IT » Cost effective » Simple to install		

Switches

Allied Telesis WebSmart switches perform a dual role in providing connectivity for a variety of computer networks. For small office networks, they provide security and data priority, allowing the deployment of Voice over IP and similar applications. In larger networks, WebSmart switches provide high levels of security, authentication and data priority — but at a lower cost point than a fully managed device.

POE POE

eco



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				A		
			FAST E1	THERNET		
SUBCATEGORY	FEATURE	AT-FS750/16	AT-FS750/24	AT-FS750/24P0E	AT-FS750/48	
FORM FACTOR		» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	
	10/100TX	16	24	24	48	
PORTS AND	10/100/1000T	2 (combo)	2 (combo)	2 (combo)	2	
MEDIA SUPPORT	SFP	2 (combo)	2 (combo)	2 (combo)	2	
	100FX SFP support	•	•	•	•	
POWER SUPPLY		Internal	Internal	Internal	Internal	
	IEEE 802.3af Class 3					
	PoE-enabled ports			12		
POWER OVER ETHERNET	Max number of full power ports			6		
	Mode			Α		
	PoE power			100W		
SCALABILITY	MAC address table size	8K	8K	8K	8K	
	Cooling	Fanless	Fanless	Fan	Fan	
ENVIRONMENTAL	ECO-switch					
	Web					
MANAGEMENT	CLI					
	SNMPv1 / v2	-	-	•	-	
	Spanning Tree	-		•		
	Rapid Spanning Tree	-	-	•	-	
IETWORK RESILIENCE	Link aggregation (LACP)					
IE I WUKK KESILIENGE	IGMP snooping (v1 / v2)	-	-	•	-	
	Port setting (speed, availability, flow control)					
QoS	IEEE 802.1p priority queues	4	4	4	4	
SECURITY	IEEE 802.1Q VLANs	256	256	256	256	
ECUKII Y	IEEE 802.1x	•	•	•	•	
	RADIUS / DHCP client	=	=	-	=	
	Jumbo frames (9K)			•	•	
	Port mirroring			•	•	
OTHER	MAC filtering / ingress/egress rate limiting / broadcast storm control	•	•	•	•	
DIMENSIONS	(W x D x H)	35.2 x 25.6 x 4.3 cm 13.85 x 10 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44.4 x 32.2 x 4.3 cm 17.5 x 12.7 x 1.7 in	44.4 x 32.2 x 4.3 cm 17.5 x 12.7 x 1.7 in	
	Weight	2.38 kg / 5.24 lb	3.24 kg / 7.14 lb	4.13 kg / 9.11 lb	3.79 kg / 8.35 lb	
DEAL ENVIRONMENT		» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	
CUSTOMER'S NEEDS		Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	» Low-cost Power over Ethernet » Management at the edge » Basic, entry level, security » Web-based management » Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	

16 | Allied Telesis Product Catalog

WebSmart Switches

eco

Simple Configuration

eco

Allied Telesis WebSmart switches may be used straight from the box with no configuration needed. Additional features can be enabled using a simple Graphical User Interface (GUI) management system, allowing less technical users to configure the devices.

PoE

Affordable Solutions

Allied Telesis WebSmart switches offer a solution with key "managed switch" features — without the price tag associated with managed switches.

These switches are perfect for budgetsensitive companies looking for advanced

eco

features such as Quality of Service (QoS), port mirroring, Virtual LAN (VLAN) and Power over Ethernet (PoE). In addition, WebSmart switches may be used on the edge of a large managed network while still providing high levels of security — the backbone network will provide all the client authentication.

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*** **** ****		There and not are		
		GIGABIT ETHERNET		
AT-GS950/8	AT-GS950/8P0E	AT-GS950/16	AT-GS950/24	AT-GS950/48
» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable	» Wall mountable » Desktop » Rack mountable
8	8	16	24	48
2 (combo)	2 (combo)	2 (combo)	4 (combo)	4 (combo)
•	•	•	•	•
Internal	Internal	Internal	Internal	Internal
	•			
	4			
	4			
	В			
	60W			
8K	8K	8K	8K	8K
Fanless	Fanless	Fanless	Fanless	Fan
•		•		•
•	•	•		•
•			•	
■ v3	•	■ v3	■ v3	•
•	•	•	•	•
•	•	•		•
•	•	•	•	•
•	•	•		•
•	•	•	•	•
4	4	4	4	4
256	256	256	256	256
•	•	•		•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
28 x 17.9 x 4.3 cm 11 x 7 x 1.7 in	32 x 23 x 4.3 cm 13 x 9.1 x 1.7 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.73 in	33 x 20 x 4.4 cm 13 x 7.9 x 1.73 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in
1.5 kg / 3.3 lb	2.54 kg / 5.6 lb	2.1 kg / 4.63 lb	2.3 kg / 5.07 lb	4.05 kg / 8.92 lb
» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge	» Classroom » Home office » SMB » Security at the edge
Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	» Low-cost Power over Ethernet » Management at the edge » Basic, entry level, security » Web-based management » Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network	Management at the edge Basic, entry level, security Web-based management Copper Ethernet at the edge of the fiber network

Autumn 2011 | 17 the solution: the network

Allied Telesis offers a range of Power over Ethernet (PoE) switches, delivering all the switching functionality needed for the network while providing power to PoE-capable connected devices.

PoE allows a copper Ethernet cable to provide power as well as data connectivity to a remote device — for example, a VoIP phone, a security camera or a wireless access point. Using PoE devices eliminates the need to provide power at the remote end of the data link.

SFP Optical Modules

Learn more about Allied Telesis pluggable optical modules on page 43.

How Much Power?

The IEEE 802.3af PoE standard allows any Power Sourcing Equipment (PSE) to provide up to 15.4 Watts of power to Powered Devices (PD, or the end-point). The IEEE 802.3at PoE+ standard allows for any PSE to provide up to 30 Watts of power.

A port connected to a network node that is not a Powered Device — that is, a device that receives its power from another source — functions as a regular Ethernet port, without PoE. The PoE feature remains enabled on the port, but no power is delivered to the device.

Class	Usage	Max. Power Levels Output at the PSE	Power Ranges Output at the PD
0	Default	15.4W	0.44W to 12.94W
1	Optional	4.0W	0.44W to 3.84W
2	Optional	7.0W	3.84W to 6.49W
3	Optional	15.4W	6.49W to 12.95W
4	Ontional	30W	12.95W to 25.50W



Power over Ethernet Switches

Power Budget

Users should ensure that the maximum power drawn by all the PDs does not exceed the maximum power that can be delivered by the PSE. If this occurs, the switch will use a predetermined algorithm to determine which ports will receive power. See user manuals for details on each switch.

Cable Types

PoE is designed to run over existing standard Ethernet cables. However, for Fast Ethernet, there are two modes of operation:

- » Mode A Injects power onto the data wires
- » Mode B Uses "spare pairs" to transmit the power

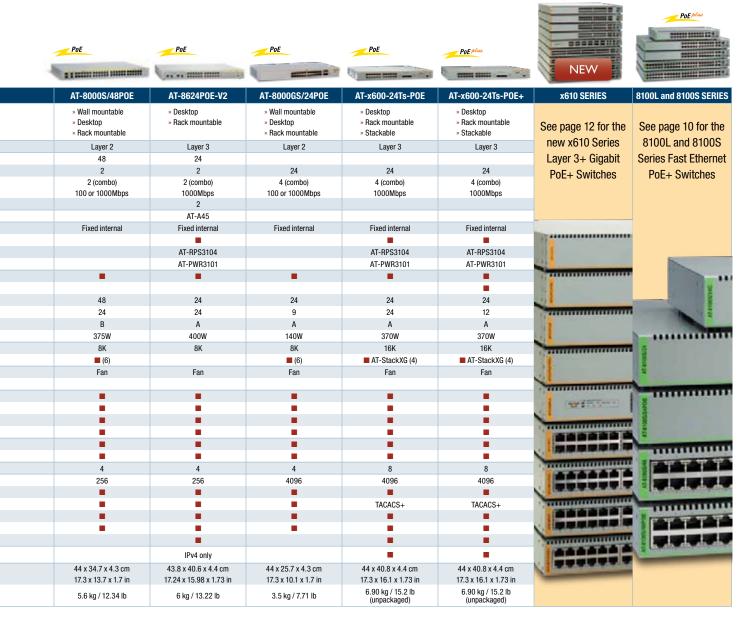
Gigabit copper connections use all four pairs to connect.

Power Injectors

Allied Telesis also offers a power injector and power splitter which can be used to inject or extract power over a single Unshielded Twisted Pair (UTP) connection:

- » AT-610IG power injector
- » AT-6102G power splitter

POE plus



Switches

Allied Telesis Fast Ethernet switches provide performance and flexibility at an affordable price. The switches offer standalone and stackable solutions targeted for the enterprise edge market. Power over Ethernet models provide connectivity for IP cameras, IP phones and wireless access points.



8000S Series

The Allied Telesis 8000S Series of stackable switches provides high performance Layer 2 switching in an affordable, fixed-configuration platform. The 8000S Series offers 24 or 48 IO/IOOTX non-PoE ports, with SFP uplink slots, plus two integrated stacking connectors.

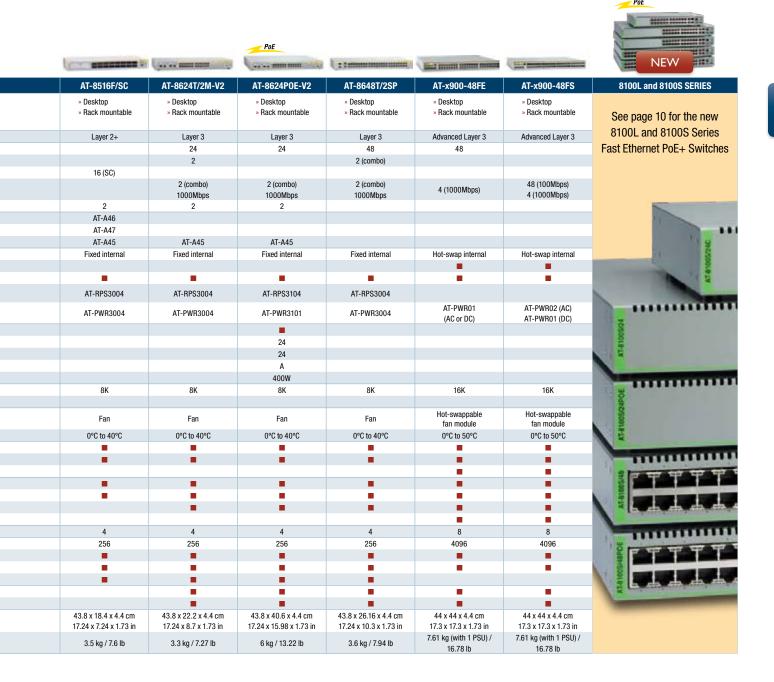
		PoE			PoE		PoE	
			mm	COMMUNICATION	.1139991111	Lannamannaman .	21,000000000000000000000000000000000000	
SUBCATEGORY	FEATURE	AT-8000/8P0E	AT-8000S/16	AT-8000S/24	AT-8000S/24P0E	AT-8000S/48	AT-8000S/48P0E	
FORM FACTOR		» Wall mountable» Desktop» Rack mountable	» Desktop » Rack mountable	» Desktop» Rack mountable» Stackable	» Desktop» Rack mountable» Stackable	» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable	
SWITCH FUNCTION	IALITY	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	
	10/100TX	8	16	24	24	48	48	
	10/100/1000T	1 (combo)	1 (combo)	2 (combo)	2 (combo)	2 (combo)	2 (combo)	
PORTS AND	100FX							
MEDIA SUPPORT	SFP	1 1000Mbps	1 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	2 (combo) 100 or 1000Mbps	
	Modular uplinks							
MODULAR	1 x 1000T							
UPLINKS	1 x GBIC							
	1 x 100FX							
	PSU type	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	
	-48vDC PSU option							
POWER SUPPLY	Redundant PSU option Redundant PSU chassis							
	(inc 1 PSU)							
	Additional redundant PSU							
	IEEE 802.3af Class 3				•		•	
POWER OVER	PoE-enabled ports	8			24		48	
ETHERNET	Max number of full power ports	6			12		24	
	Mode	В			В		В	
	PoE power	95W			180W		375W	
SCALABILITY	MAC address table size	8K	8K	8K	8K	8K	8K	
	Stacking			(6)	(6)	(6)	(6)	
ENVIRONMENTAL	Cooling	Fan	Fanless	Fanless	Fan	Fan	Fan	
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	
	Web	_	•	-		-	_	
MANAGEMENT	CLI / Telnet / SNMP	•		•	•	•	•	
	IPv6	•		_	•		•	
NETWORK	Spanning Tree	•	- :					
RESILIENCE	Link aggregation (LACP) VRRP		<u>-</u>	_	-	_	-	
5/2/2/02	EPSR							
QoS	IEEE 802.1p priority queues	4	4	4	4	4	4	
	IEEE 802.1Q VLANs	256	256	256	256	256	256	
SECURITY	Guest VLANs		
	RADIUS / SSH/SSL / IEEE 802.1x		•	_	•	•	•	
	DoS protection							
ROUTING	RIPv1 and v2							
NUU I ING	OSPFv2							
DIMENSIONS	(W x D x H)	33 x 22.8 x 4.3 cm 13 x 8 x 1.7 in	33 x 23 x 4.3 cm 13 x 9.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 34.7 x 4.3 cm 17.3 x 13.7 x 1.7 in	
DIMILITATIONS	Weight	2.2 kg / 4.9 lb	1.95 kg / 4.29 lb	3.15 kg / 6.94 lb	3.7 kg / 8.15 lb	3.38 kg / 7.45 lb	5.6 kg / 12.34 lb	

Fast Ethernet Switches



8600 Series

The Allied Telesis 8600 Series are cost-effective, feature-rich Fast Ethernet Layer 3 edge switches. They are designed to provide desktop connectivity for enterprise workgroups, mid-sized networks and high school and campus networks. The 8600 Series provides management stacking up to nine switches that can be remotely managed as a single IP across different sites. This solution uses open standard interfaces as stacking links so that switches can be stacked across different sites. It offers advanced switching features such as RIP, OSPF, VRRP, multicast routing, wirespeed Layer 2/3/4 traffic classifiers, bandwidth limiting, DiffServ and Access Control Lists for service providers, Telco, multi-tenant or multi-business unit applications.



Switches

Allied Telesis Gigabit Ethernet switches provide advanced enterprise features to improve delivery of converged data.



9000 Series

The Allied Telesis 9000 Series of high-performance Layer 2 28-port and 52-port Gigabit Ethernet switches offers advanced enterprise features at an affordable price. Featuring an industry-standard AlliedWare Plus CLI and Web interface, the ECO-switch helps reduce power consumption and minimizes noise. The 9000 Series provides enhanced stacking of up to 24 units that can be remotely managed as a single IP across different sites. Features such as IEEE 802.1x port-based authentication, Microsoft Network Access and Symantec Network Access Control provide security at the network edge.

	tra with		eco inconfic	eco tremb			

SUBCATEGORY	FEATURE	AT-9000/28	AT-9000/28SP	AT-9000/52			
FORM FACTOR		» Desktop » Rack mountable	» Desktop » Rack mountable	» Desktop » Rack mountable			
SWITCH FUNCTIONALITY		Layer 2	Layer 2	Layer 2			
PORTS AND	10/100/1000T	28	4 (combo)	48			
MEDIA SUPPORT	SFP	4 (combo) (100 or 1000Mbps)	28 (100 or 1000Mbps)	4 (100 or 1000Mbps)			
	IEEE 802.3af Class 3						
DOWER OVER ETHERNET	PoE-enabled ports						
POWER OVER ETHERNET	Max no. of full power ports						
	PoE power						
COALABILITY	MAC address table size	8K	8K	8K			
SCALABILITY	Stacking	*	*	■ *			
	Cooling	Fanless	Fan	Fan			
ENVIRONMENTAL	ECO-switch	•	•	•			
	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C			
	Web			•			
MANAGEMENT	CLI / Telnet / SNMP	•	•	•			
	IPv6	•	•	•			
NETWORK	Spanning Tree						
RESILIENCE	Link aggregation (LACP)	•	•	•			
QoS	IEEE 802.1p priority queues	8	8	8			
	IEEE 802.1Q VLANs	4096	4096	4096			
SECURITY	RADIUS / IEEE 802.1x	•	•	•			
	TACACS	•	•	•			
	SSH/SSL	•	•	•			
DIMENSIONS	(W x D x H)	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.6 x 4.3 cm 17.3 x 10 x 1.7 in			
	Weight	3.61 kg / 7.95 lb	4.01 kg / 8.85 lb	4.06 kg / 8.95 lb			

Gigabit Edge Switches



8000GS Series

The Allied Telesis 8000GS Series of high-performance Gigabit Ethernet stackable switches provides high performance Layer 2 switching in an affordable, fixed-configuration platform. This Series offers 24 10/100/1000T, PoE and non-PoE versions, as well as a 48-port 10/100/1000T model. All models support four combo IGbps SFP slots and two integrated stacking connectors that deliver a total of 20Gbps stacking bandwidth. The stacking capability integrated into this platform is configured as a resilient ring topology designed to provide high reliability and simplified management for higher port density applications. Support for jumbo Ethernet frames enables higher throughput of time-sensitive data.

PoE							

AT-8000GS/24	AT-8000GS/24P0E	AT-8000GS/48					
» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable					
Layer 2	Layer 2	Layer 2					
24	24	48					
4 (combo) (100 or 1000Mbps)	4 (combo) (100 or 1000Mbps)	4 (combo) (100 or 1000Mbps)					
	•						
	24						
	9						
	140W						
8K	8K	8K					
■ (6)	(6)	(6)					
Fan	Fan	Fan					
0°C to 40°C	0°C to 40°C	0°C to 40°C					
•	•						
•							
•	•						
•	•	•					
•	•						
4	4	4					
4096	4096	4096					
•	•						
•	•						
•	•						
44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in	44 x 25.7 x 4.3 cm 17.3 x 10.1 x 1.7 in					
3.15 kg / 6.94 lb	3.50 kg / 7.71 lb	3.38 kg / 7.45 lb					

* Enhanced Stacking up to 24 units

Securing the Network Edge

Protocols such as IEEE 802.1x port-based authentication guarantee that only known users are connected to the network, ensuring the protection of your data. Unknown users who physically connect can be isolated to a predetermined part of your network, offering guests such benefits as Internet access while ensuring the integrity of your private network data.

Secure Management

Only authorized administrators can access the management interface of the 9000 and 8000GS Series. Security protocols such as SSL, SSH and SNMPv3 facilitate this protection of your network for both local or remote connections.

Access Control Lists (ACLs)

Access Control Lists enable inspection of incoming frames and classify them based on various criteria. Specific actions can then be applied to these frames in order to more effectively manage the network traffic. Typically ACLs are used as a security mechanism, either permitting or denying entry for frames in a group, but can also be applied to QoS.

Ideal Branch Office and Wiring Closet Connectivity

Powerful line rate performance makes this switch ideal for branch offices or the wiring closet of larger offices. The state-of-the-art QoS capability of these products ensures reliable delivery of advanced network services such as voice and video, while effectively controlling the continually increasing traffic needs found in today's networks.

Switches

Allied Telesis aggregation and core switches provide the backbone to any large network — reliable and resilient, with the capacity and throughput to handle today's networks. Redundant power supplies ensure high availability, while VCStack™ and link aggregation provide resilience, ensuring access switches continue to achieve connectivity even in the event of a major failure.



x600 Series

Allied Telesis x600 Series advanced Layer 3 switches offer an impressive range of features for the aggregation edge. They provide scalability, resiliency, security, high-performance and are easy to manage using AlliedWare Plus CLI and Web interfaces. The x600 Series provides hardware stacking up to four units using VCStack virtual chassis stacking with a dedicated stacking bandwidth of 48Gbps. Features such as NAC, IEEE 802.1x port-based authentication, dynamic VLAN, guest VLAN, MAC authentication, RADIUS client, RADIUS server, BPDU guard, STP root guard, Denial of Service (DoS) attacking and ACLs provides advanced security to protect the network from the edge to the core.

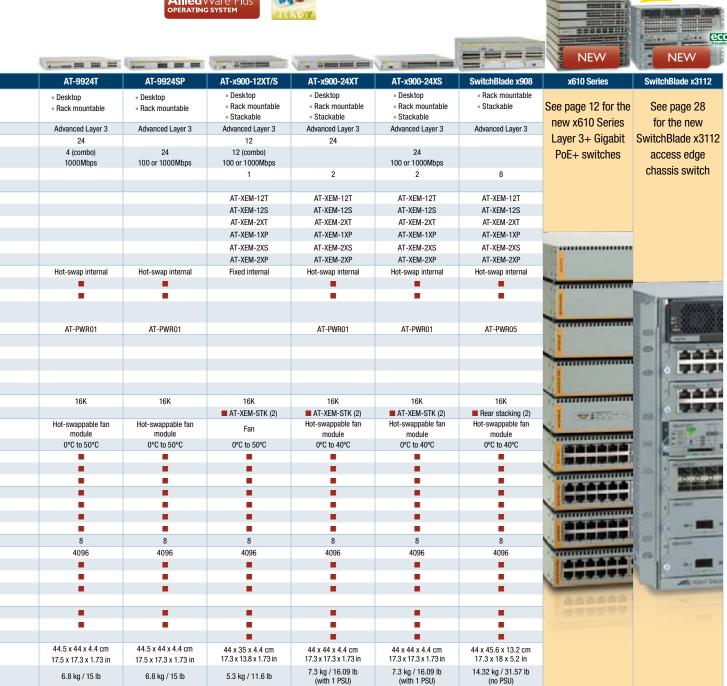
			PoE	PoE plus				
			·					
SUBCATEGORY	FEATURE	AT-x600-24Ts	AT-x600-24Ts-P0E	AT-x600-24Ts-P0E+	AT-x600-24Ts/XP	AT-x600-48Ts	AT-x600-48Ts/XP	
FORM FACTOR		» Desktop » Rack mountable » Stackable	» Desktop» Rack mountable» Stackable					
SWITCH FUNCTIONA	LITY	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	
	10/100/1000T	24	24	24	24	44	44	
PORTS AND MEDIA SUPPORT	SFP	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 (combo) 1000Mbps	4 1000Mbps	4 1000Mbps	
WEDIA SUPPURI	Modular uplinks							
	Fixed XFP (10GbE)				2		2	
	12 x 10/100/1000T							
	12 x SFP (100 or 1000Mbps)							
MODULAR	2 x RJ-45 (10GbE)							
UPLINKS	1 x XFP (10GbE)							
	2 x SFP+ (10GbE)							
	2 x XFP (10GbE)							
	PSU type	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	Fixed internal	
	-48vDC PSU option							
	Redundant PSU option							
POWER SUPPLY	Redundant PSU chassis			.=	.=		.=	
	(inc 1 PSU)	AT-RPS3204	AT-RPS3104	AT-RPS3104	AT-RPS3204	AT-RPS3204	AT-RPS3204	
	Additional redundant PSU	AT-PWR3202	AT-PWR3101	AT-PWR3101	AT-PWR3202	AT-PWR3202	AT-PWR3202	
	IEEE 802.3af							
	IEEE 802.3at			•				
POWER OVER ETHERNET	PoE-enabled ports		24	24				
EIHEKNEI	Max no. of full power ports		24	12				
	PoE power		370W	370W				
	MAC address table size	16K	16K	16K	16K	16K	16K	
SCALABILITY	Stacking (VCStack)	AT-StackXG (4)	AT-StackXG (4)	■ AT-StackXG (4)	■ AT-StackXG (4)	■ AT-StackXG (4)	AT-StackXG (4)	
	Cooling	Fan	Fan	Fan	Fan	Fan	Fan	
ENVIRONMENTAL	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	0°C to 40°C	
	Web	0 0 10 40 0	0 0 10 40 0	0 0 10 40 0	0 0 10 40 0	00000	0 0 10 40 0	
MANAGEMENT	CLI / Telnet / SNMP		_	-		-	-	
MANAGEMENT	OSPFv2 / OSPFv3							
	Spanning Tree	-	-	_		-		
NETWORK	Link aggregation (LACP)						-	
RESILIENCE	VRRP			-			-	
HEGILIENGE	EPSR					-		
QoS	IEEE 802.1p priority queues	8	8	8	8	8	8	
QUU	IEEE 802.1Q VLANs	4096	4096	4096	4096	4096	4096	
	RADIUS / IEEE 802.1x	4030	4030	4030	4030	4030	4030	
SECURITY	TACACS+							
	SSH/SSL			-			-	
			-				-	
	DoS protection IPv4	-	-	-		-	-	
ROUTING	IPv6	-	-	-	- :	-	- :	
noutina	VRF-Lite	•	•	•	-	•	•	
	VNF-LILE	4400.54.4.	44 40 0 4 4 .	44 :: 40 0 :: 4 4 -	4400.54.4.5	4400 544.	4400 544.	
DIMENSIONS	(W x D x H)	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 40.8 x 4.4 cm 17.3 x 16.1 x 1.73 in	44 x 40.8 x 4.4 cm 17.3 x 16.1 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	44 x 30.5 x 4.4 cm 17.3 x 12 x 1.73 in	
	Weight	4.5 kg / 9.9 lb (unpackaged)	6.9 kg / 15.2 lb (unpackaged)	6.9 kg / 15.2 lb (unpackaged)	4.6 kg / 10.1 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	

Gigabit Aggregation/Core Switches

Allied Ware Plus OPERATING SYSTEM

x900 Series

Allied Telesis x900 Series advanced Layer 3 switches utilize a highly modular design that allows growth in response to network demands. They provide a range of hot-swappable copper and fiber expansion modules (XEMs), from I0/I00/I000Mbps to I0 Gigabit Ethernet. Dual redundant power supply units are hot-swappable. The AlliedWare Plus CLI and Web interfaces make management easy, and features such as policy-based QoS, extensive remarking capabilities, control plane traffic prioritization and bandwidth metering ensure wirespeed delivery of critical IPv4 and IPv6 traffic.



Switches

Allied Telesis offers versatile, highly resilient 10 Gigabit connections for the most advanced and demanding of enterprise, service provider and municipal networks. Capabilities include carrier-grade modular and chassis-based switching and access solutions that provide Ethernet Protected Switched Rings with sub 50ms failover for mission-critical services.

Ethernet Protected Switched Rings (EPSR)

Putting a ring of Ethernet switches at the core of a network is a simple way to increase the network's resilience — such a network is no longer susceptible to a single point of failure. Traditionally, Spanning Tree-based technologies are used to protect rings, but they are relatively slow to recover from link failure. This can create problems for applications that have strict loss requirements, such as voice and video traffic, where the speed of recovery is highly significant. EPSR provides high-speed (<50ms) reconfigurations in the event of a failure, ensuring no noticeable loss of service in these types of installations.

Dual Core Networking

Traditional core switches provide resilience by having one chassis actively running, while a second sits in standby. Users therefore pay for two chassis, but only achieve the throughput and performance of a single chassis. Allied Telesis switches with VCStack virtual chassis stacking allow both core switches to pass traffic actively, with one also being the backup in the event of a failure. Thus for the majority of the time, users benefit from twice the performance of a traditional core network.

				T. Berner	O man man man	(
SUBCATEGORY	FEATURE	AT-x600-24Ts/XP	AT-x600-48Ts/XP	AT-x900-12XT/S	AT-x900-24XT	AT-x900-24XS
FORM FACTOR		» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable	» Desktop » Rack mountable » Stackable	» Desktop» Rack mountable» Stackable	» Desktop » Rack mountable » Stackable
SWITCH FUNCTIONALITY		Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3	Advanced Layer 3
	10/100/1000T	24	44	12	24	
PORTS AND Media Support	SFP	4 (combo) (1000Mbps)	4 (1000Mbps)	12 (combo) (100 or 1000Mbps)		24 (100 or 1000Mbps)
	Modular uplinks			1	2	2
	Fixed XFP (10GbE)	2	2			
	12 x 10/100/1000T			AT-XEM-12T	AT-XEM-12T	AT-XEM-12T
	12 x SFP (100 or 1000Mbps)			AT-XEM-12S	AT-XEM-12S	AT-XEM-12S
	2 x RJ-45 (10GbE)			AT-XEM-2XT	AT-XEM-2XT	AT-XEM-2XT
MODULAR UPLINKS	1 x XFP (10GbE)			AT-XEM-1XP	AT-XEM-1XP	AT-XEM-1XP
	2 x SFP+ (10GbE)			AT-XEM-2XS	AT-XEM-2XS	AT-XEM-2XS
	2 x XFP (10GbE)			AT-XEM-2XP	AT-XEM-2XP	AT-XEM-2XP
	PSU type	Fixed internal	Fixed internal	Fixed internal	Hot-swap internal	Hot-swap internal
	-48vDC PSU option				•	
OWER SUPPLY	Redundant PSU support					
	Redundant PSU chassis (inc 1 PSU)	AT-RPS3204	AT-RPS3204			
	Additional redundant PSU	AT-PWR3202	AT-PWR3202		AT-PWR01	AT-PWR01
	MAC address table size	16K	16K	16K	16K	16K
CALABILITY	Stacking (VCStack)	■ AT-StackXG (4)	AT-StackXG (4)	■ AT-XEM-STK (2)	AT-XEM-STK (2)	■ AT-XEM-STK (2)
ENVIRONMENTAL	Cooling	Fan	Fan	Fan	Hot-swappable fan module	Hot-swappable fan module
	Web	•	•	•		
MANAGEMENT	IPv6					
	CLI / Telnet / SNMP	•	_	-		
	Spanning Tree					
	Link aggregation (LACP)					
IETWORK RESILIENCE	VRRP					_
	EPSR	_	_			_
loS	IEEE 802.1p priority queues	8	8	8	8	8
100	IEEE 802.10 VLANs	4096	4096	4096	4096	4096
	RADIUS / TACACS+	4000	1000	-1000	1000	4000
SECURITY	SSH/SSL	-	-			
	IEEE 802.1x	-	_		-	_
	DoS protection		-	_	_	_
	RIPv1 and v2	_		-	_	_
	RIPng	_	_	-	-	
ROUTING	OSPFv2		-	-	-	_
IOOTING	OSPFv3		-	-		
	VRF-Lite	-	-		-	-
		44 x 30.5 x 4.4 cm	44 x 30.5 x 4.4 cm	44 x 35 x 4.4 cm	44 x 44 x 4.4 cm	44 x 44 x 4.4 cm
DIMENSIONS	(W x D x H)	17.3 x 12 x 1.73 in	17.3 x 12 x 1.73 in	17.3 x 13.8 x 1.73 in	17.5 x 17.3 x 1.73 in	17.5 x 17.3 x 1.73 in
DIMENSIONS	Weight	4.6 kg / 10.1 lb (unpackaged)	4.9 kg / 10.8 lb (unpackaged)	5.3 kg / 11.6 lb	7.3 kg / 16.09 lb (with 1 PSU)	7.3 kg / 16.09 lb (with 1 PSU)

10 Cigabit Switches

10 Gigabit Switches





The SwitchBlade x908 industry-leading modular switch incorporates eight high-speed 60Gbps expansion bays, delivering a new generation of high performance switches. The SwitchBlade x908 provides scalable and versatile switching solutions for today's enterprise networks. The highly configurable SwitchBlade x908 3RU modular switch combines an advanced IPv4 Layer 3 feature set and comprehensive IPv6 routing features, with wirespeed IPv6 hardware capability, future proofing the network. Featuring dual hot-swap PSUs, an advanced QoS feature set, multicasting support, and LAN resiliency support, the SwitchBlade x908

hot-swap PSUs, an advanced QoS feature set, multicasting support, and LAN resiliency support, the SwitchBlade x908 also provides service provider capabilities such as a large Layer 3 route table and EPSR support. Stacking between

two units is supported via fixed stacking connectors on the rear of the chassis, providing 160Gbps of stacking bandwidth. The SwitchBlade x908 incorporates the AlliedWare Plus operating system, using an industry-standard CLI, facilitating effortless manageability.



	\A	
SwitchBlade x908	x610 Series	SwitchBlade x3112
» Rack mountable » Stackable	See page 12 for the	See page 28
Advanced Layer 3	new x610 Series	for the new
	Layer 3+ Gigabit	SwitchBlade x3112
	PoE+ switches	access edge
8	. 02 : 0111101100	chassis switch
AT VEM 40T		CHASSIS SWITCH
AT-XEM-12T AT-XEM-12S		
AT-XEW-125 AT-XEM-2XT	1 1	THE RESERVE
AT-XEM-1XP	A	1 4000
AT-XEM-2XS		
AT-XEM-2XP		C.
Hot-swap internal	1.01	SO THE
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	5.71	Thirties.
AT-PWR05		
16K		
Rear stacking (2)		No. of the last of
Hot-swappable fan module	-	20 AEEEE
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44 x 45.6 x 13.2 cm	/	
44 X 45.6 X 13.2 cm 17.3 x 18 x 5.2 in	Vannamannamannamannamannamannamannamann	
14.32 kg / 31.57 lb (no PSU)		
14.02 kg / 01.07 lb (li0 1 00)		

Implementing the Standard

The IEEE standard allows multiple implementations for use over different types of fiber optic cables. In the IOGBASE-X media types, an 'S' stands for the 850 nanometer (nm) wavelength of fiber optic operation, an 'L' stands for I310 nm, and an 'E' stands for I550 nm. Allied Telesis offers the following:

XFP	Standard	Distance	Cable Type
AT-XPSR	10G-SR	300 m	Multi-mode fiber (MMF)
AT-XPLR	10G-LR	10 km	Single-mode fiber (SMF)
AT-XPER40	10G-ER	40 km	Single-mode fiber (SMF)
AT-XPER80	10G-ER	80 km	Single-mode fiber (SMF)
SFP+	Standard	Distance	Cable Type
AT-SP10SR	10G-SR	300 m	Multi-mode fiber (MMF)
AT-SP10LR	10G-LR	10 km	Single-mode fiber (SMF)

Allied Telesis XEM Modules

All of these modules provide non-blocking performance and are compatible with the x900 Series and the SwitchBlade x908.



AT-XEM-STK High-speed stacking module



AT-XEM-12T 12 × 10/100/1000Tbased uplink module



AT-XEM-IXP I x 10Gbps XFPbased uplink module



AT-XEM-2XS 2 x 10Gbps SFP+ uplink module



AT-XEM-2XP 2 x 10Gbps XFPbased uplink module



AT-XEM-2XT 2 x 10Gpbs RJ-45 uplink module



AT-XEM-12S 12 x SFP-based uplink module

NEW FOR 2011

The SwitchBlade x3112 is a 12-slot access edge chassis switch primarily targeted for service provider fiber access networks, and equally at home at the enterprise network edge and the data center. The switch was designed to deliver high availability, maximum performance with wirespeed non-blocking backplane performance, and high port count.

FTTx Service Provider Applications

The SwitchBlade x3112 is a versatile carrier-class FTTx platform for delivering Gigabit services to residential, Multi-Dwelling Unit (MDU) and business customers in the last mile. It features redundant power supplies, controllers and WAN ports to ensure reliability standards in carrier networks are met, along with powerful sub-50 millisecond failover protection using EPSR ring for link level protection. The AT-SBx3112 is available with either AC or DC power options.

As a FTTx platform, the SwitchBlade x3112 can support a maximum of 240 ports per chassis using 24-port 100/1000Mbps SFP-based line cards (AT-SBx31GS24). It can also support redundant 10G uplinks using 4-port XFP based line cards with EPSR (AT-SBx31XZ4). The SwitchBlade x3112 can act as an aggregation hub for last mile FTTx applications using 10G line cards. It features 40 Gigabit non-blocking throughput to each slot, thus providing a maximum level of performance for FTTx services, both 1G and 10G. Coupled with ultra-fast 200G switch controllers, FTTx services can operate at wirespeed connectivity.

An evolution of the Allied Telesis tried and tested iMAP carrier-grade platform, the SwitchBlade x3112 delivers true IP Triple Play services such as IPTV, VoIP. Tiered High Speed Internet Access (HSIA) and other cloud-based services such as Over-the-Top Video, remote storage and backup, and cloud computing.

Raw performance combined with high availability also allows it to be deployed as both end-of-row and aggregation in data center applications, and in campus applications as the ultimate in network edge connectivity.

High-Availability Architecture

The SwitchBlade x3112 is designed to deliver 99.999% reliability, while offering high availability with sub-millisecond hitless failover for mission-critical applications where uptime is essential such as data centers, hospitality, government, and financial institutions.

Dual redundant management/fabric modules inter-connecting through redundant paths to the line cards over a passive backplane,

and dual redundant power options, ensures maximum system up-time. Power is delivered via up to two system power supplies, and two Power over Ethernet supplies to ensure continual operation.

Power over Ethernet Plus (PoE+)

The SwitchBlade x3112 supports IEEE 802.3at PoE+ (30W) to enable customers to future-proof their network. PoE+ provides greater power for applications such as IP surveillance cameras supporting pan, tilt and zoom, IP video phones, RFID readers, point-of sale or wireless access points.

Secure Management

Only authorized administrators can access the management interface of the SwitchBlade x3112. Protocols such as SSH provide an encrypted interface for both local and remote connections, with out-of-band management achieved though a dedicated Gigabit port if required.

SUBCATEGORY	FEATURE	AT-SBx3112	AT-SBx3112-96P0E+	AT-SBx3112-8XR
PRODUCT		Chassis with fan tray	Chassis bundle	Chassis bundle
SWITCH FUNCTIONALITY		Layer 2+	Layer 2+	Layer 2+
	Controller Fabric Card (CFC)		1 x AT-SBx31CFC	2 x AT-SBx31CFC
ACCESSORIES	24 x 10/100/1000T PoE+		4 x AT-SBx31GP24	
	4 x XFP (10GbE)			2 x AT-SBx31XZ4
	System power supply		1 x AT-SBx3161	2 x AT-SBx3161
	PoE power supply		1 x AT-SBx3165	
	Fan tray		1 x AT-SBx31FAN	1 x AT-SBx31FAN
POWER SUPPLY	PSU type	Hot-swap internal	Hot-swap internal	Hot-swap internal
	-48vDC PSU option	Available second half 2011	Available second half 2011	Available second half 2011
POWER OVER ETHERNET	IEEE 802.3at Class 4 and 802.3af Class 3	•	•	•
	Max number of PoE-enabled ports		96	
	Max number of IEEE 802.3at ports		80	
	Max number of IEEE 802.3af ports		200	
	Mode		A	
NIVIDONIMENTAL	Cooling	Fan tray	Fan tray	Fan tray
ENVIRUNWENTAL	Temperature range	0°C to 40°C	0°C to 40°C	0°C to 40°C
MANAGEMENT	CLI / Telnet / SNMP	•	.	
	Spanning Tree	•		
POWER SUPPLY POWER OVER ETHERNET ENVIRONMENTAL MANAGEMENT JETWORK RESILIENCE JOS GECURITY	Link aggregation (LACP)	•	•	
	EPSR	•		
QoS	IEEE 802.1p priority queues	8	8	8
	IEEE 802.1Q VLANs	4K	4K	4K
SECURITY	VLAN double tagging (Q-in-Q)		•	•
	RADIUS / TACACS+ / SSH		•	
	(W x D x H)	48.03 x 38.79 x 31.01 cm	48.03 x 38.79 x 31.01 cm	48.03 x 38.79 x 31.01 cm
DIMENSIONS		18.9 x 12.2 x 4.8 in	18.9 x 12.2 x 4.8 in	18.9 x 12.2 x 4.8 in
	Weight	17.77 kg / 39.1 lb	30.4 kg / 67.02 lb	28.91 kg / 63.6 lb

Securing the Network Edge

To ensure the protection of the data, it is important to control access to the network. Protocols such as IEEE 802.Ix authentication guarantee that only known users are connected to the network. Unknown users who physically connect can be isolated to a predetermined part of the network, offering guests such benefits as Internet access while ensuring the integrity of private network data.

Secure Differentiation

QoS schemes for SwitchBlade x3112 access solutions are designed to ensure that application performance and availability are not impacted with network growth. Features such as IEEE 802.1p/Q enable tiered data services for residential, business and enterprise users to prioritize real-time applications such as IP phones and IP cameras.

Environmentally Friendly

In keeping with our commitment to environmentally friendly processes and products, the SwitchBlade x3112 is designed to reduce power consumption and minimize hazardous waste. Features include the use of highefficiency power supplies and low-power chip sets. The switches also include an eco-friendly button on the front panel allowing conservation of additional power by turning off all diagnostic LED indicators when they are not required.



SwitchBlade x3112 Modules

AT-SBx31CFC Controller Fabric Card (CFC)

AT-SBx31GP24

24-port 10/100/1000T PoE Ethernet line card

AT-SBx31XZ4

4-port 10GE XFP Ethernet line card

AT-SBx3IGS24
24-port SFP Ethernet line card

AT-SBx3161 1200W AC system power supply

AT-SB×3165 1200W AC PoE power supply

AT-SBx3IFAN
Contains four fans, temperature sensors and controller board





Accessories

Small Form Pluggal	ole Optics	Supported Platforms
AT-XPSR	XFP, MMF, 10Gbps, 300 m, 850 nm, LC	AT-SBx31XZ4
AT-XPLR	XFP, SMF, 10Gbps, 10 km, 1310 nm, LC	AT-SBx31XZ4
AT-XPER40	XFP, SMF, 10Gbps, 40 km, 1550 nm, LC	AT-SBx31XZ4
AT-XPER80	XFP, SMF, 10Gbps, 80 km, 1550 nm, LC	AT-SBx31XZ4
AT-SPSX	SFP, MMF, 1000Mbps, 220 / 500 m, 850 nm, LC	AT-SBx31GS24
AT-SPEX	SFP, MMF, 1000Mbps, 2 km, 1310 nm, LC	AT-SBx31GS24
AT-SPLX10	SFP, SMF, 1000Mbps, 10 km, 1310 nm, LC	AT-SBx31GS24
AT-SPLX40	SFP, SMF, 1000Mbps, 40 km, 1310 nm, LC	AT-SBx31GS24
AT-SPZX80	SFP, SMF, 1000Mbps, 80 km, 1550 nm, LC	AT-SBx31GS24
AT-SPBD10-13	SFP, SMF, 1000Mbps, 10 km, 1310/1490 nm, LC-BiDi	AT-SBx31GS24
AT-SPBD10-14	SFP, SMF, 1000Mbps, 10 km, 1490/1310 nm, LC-BiDi	AT-SBx31GS24
AT-SPFX/2	SFP, MMF, 100Mbps, 2 km, 1310 nm, LC	AT-SBx31GS24
AT-SPFXBD-LC-13	SFP, SMF, 100Mbps, 10 km, 1310/1510 nm, LC-BiDi	AT-SBx31GS24
AT-SPFXBD-LC-15	SFP, SMF, 100Mbps, 10 km, 1510/1310 nm, LC-BiDi	AT-SBx31GS24
AT-SPFX/15	SFP, SMF, 100Mbps, 15 km, 1310 nm, LC	AT-SBx31GS24





Learn more about Allied Telesis pluggable optical modules on page 43.



iMAP and iMG

alliedtelesis.com/imapimg

IP is driving new services and innovating new applications. Converged services and real-time communications are changing lifestyles, along with the type of network to deliver them. Service providers face the challenge of re-architecting the access network to meet today's IP-driven broadband service such as IP Triple Play, and at the same time try to anticipate the requirements for the "next new service." Selecting the best platform and technology becomes critical to protecting investments as well as being able to respond competitively to new service needs.

The Allied Telesis iMAP integrated Multiservice Access Platform and iMG intelligent Multiservice Gateway families are the benchmark of true next-generation IP access solutions, delivering all of today's critical broadband service needs and designed to evolve as new service demands change.



iMAP and iMG







		imap Chassis									
SUBCATEGORY	FEATURE	MiniMAP 9100		iMAP	9700			iMAF	9810		
MODEL NUMBER	,	AT-TN-9101 / 2 / 3		AT-TN	I-250G		AT-TN-253G				
PHYSICAL HEIGHT		1RU		9	RU		3RU				
	Single AC	AT-TN-9102		Requires addition	onal AT-TN-R113			Requires addition	onal AT-TN-R113		
POWER SUPPLY	Dual AC (option)	AT-TN-9103	Re	equires additional AT-T	N-R113 and AT-TN-R1	114	Re	Requires additional AT-TN-R113 and AT-TN-R114			
	Dual DC	AT-TN-9101		Star	ndard		Standard				
CONTROLLER	Primary fabric controller	CFC12 (AT-TN-408)	CFC24 (AT-TN-401)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	
CARDS	Optional redundant controller		CFC24 (AT-TN-401)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC56 (AT-TN-407)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	CFC100 (AT-TN-409)	
	Slots	None - transport on CFC12 fabric	2	2	2	2	2	2	2	2	
NETWORK	Model	CFC12 fabric (AT-TN-408)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE1S (AT-TN-310)	XE6 (AT-TN-309)	GE3 (AT-TN-301)	XE1 (AT-TN-308)	XE1S (AT-TN-310)	XE6 (AT-TN-309)	
TRANSPORT	Uplink ports	4 x SFP + 2 x 10/100/1000T	3 x SFP	3 x SFP 1 x XFP 1 x SFP+ Gigabit 10GbE 10GbE		6 x SFP+	3 x SFP	1 x XFP	1 x SFP+	6 x SFP+	
	Uplink speed	Gigabit	Gigabit			10GbE	Gigabit	10GbE	10GbE	10GbE	
BLADE SLOTS		3	17 (16 with dual-fabric cards)			15 (when dual XE6 installed, 14 with dual-fabric cards)	8			6 (when dual XE6 installed)	
	xDSL	72		408		360	192			144	
	POTS	72		408		360	192			144	
	T1/E1	24		136		120	64			48	
	Dual fiber (100Mbps)	30		170		150	80			60	
MAX PORTS	BiDi fiber (100Mbps)	60		340		300		160		120	
	BiDi fiber (1000Mbps)	72		408		360	192			144	
	10/100TX (copper)	30		170		150	80			60	
	Gigabit	24		136		120		64		48	
	GEPON	192		1088		960		512		384	
TEMPERATURE RA	NGE	-40°C to 65°C (AT-TN-9102/3 AC version: 0°C to 55°C)		-40°C	to 65°C		-40°C to 65°C				
	(W x D x H)	(AT-TN-9101) DC power 48.3 x 30 x 4.45 cm 19 x 11.8 x 1.75 in			0 x 40 cm x 15.75 in				5 x 13.3 cm x 5 25 in		
DIMENSIONS		(AT-TN-9102/3) AC power 48.3 x 51.3 x 4.45 cm 19 x 20.2 x 1.75 in		13 & 11.0	v 10'12 III		19 x 12 x 5.25 in				
	Weight	4 kg / 8.8 lb (DC chassis) 6.7 kg / 14.75 lb (AC chassis)		15 kg	/ 33 lb		7 kg / 15.4 lb				



			IIIIAI DENDES								
SUBCATEGORY	FEATURE	FE10	POTS24C	ADSL24AE	PAC24	PAC24EU	PAC24C	ADSL24SA	ADSL48A	ADSL24B	
PART NUMBER	•	AT-TN-102	AT-TN-143	AT-TN-140	AT-TN-123	AT-TN-136	AT-TN-145	AT-TN-129	AT-TN-131	AT-TN-124	
	10/100TX	10									
COPPER	POTS		24		24	24		24			
	ADSL splitter						24				
	ADSL (Annex A)			24	24	24	24	24	48		
	ADSL (Annex B)									24	
	G.SHDSL										
	VDSL2 (Annex A)										
	VDSL2 (Annex B)										
	T1/E1 (circuit emulation)										
	T1/E1 (data transport)										
	100Mbps (2 fiber), SMF										
	100Mbps BiDi, SMF										
FIBER	100/1000Mbps BiDi, SMF										
	SFP (1000Mbps)										
	GEPON										
PHYSICAL	Single/double width blade	Single	Single	Single	Double	Double	Double	Double	Double	Single	
SALES REGION					US only	EU only	US only	US only		EU only	

INTEGRATED MULTISERVICE ACCESS PLATFORM

As the world's communications systems move to an all IP and Ethernet access network with IP/MPLS core, Allied Telesis' iMAP integrated Multiservice Access Platform represents the first and only true IP access platform designed for this purpose. Its unique carrier-grade IP/ Ethernet capabilities are suitable for any provider building an IP access network now. Industry-leading capabilities position the iMAP as the access network for alternative and emerging carriers, Independent Operating Companies (IOCs), PTTs, ILECs, ISPs, public utilities and private organizations such as hospitals, hotels and Multi-Tenant/Multi-Dwelling Units (MTU/ MDU).

Double

EU only

Single

Single

Single

Single

Single

One Access Platform, Any Service

The iMAP product family is designed to support IP Triple Play and video services using Ethernet technology. With redundant Gigabit Ethernet connections to each line card from the control modules, there is ample bandwidth and throughput for all current and future services and access technologies. A common control and fabric enables 10GbE backplane connectivity, ensuring future capacity and performance needs are addressed without ever requiring a forklift upgrade.

Multiple Services, Diversified and Increased Revenues

In addition to the traditional and enhanced ADSL / ADSL2+ and VDSL2, the iMAP provides the capability to offer revenue-generating residential and business services such as FTTx, TI/EI, G.SHDSL and POTS—all from the same platform. With features like Ethernet Protection Switched Rings (EPSR), iMAPs can be networked together with full redundancy and sub-50ms switchover times, ensuring carrier-grade 99.999% availability and maximum service uptime.







8

Single

Single



			imap controller cards						
SUBCATEGORY	FEATURE	CFC12	CFC24	CFC56	CFC100				
PART NUMBER		AT-TN-408	AT-TN-401	AT-TN-407	AT-TN-409				
CHASSIS COMPATIBLE	MiniMAP 9100								
	iMAP 9400								
	iMAP 9700		•	•					
	iMAP 9810								
	Switching fabric	12Gbps	24Gbps	56Gbps	100Gbps				
PERFORMANCE	EPSR								
PERFURIMANUE	VLANs per port	4095	4095	4095	4095				
	Per VLAN rate limiting	•							
UPLINKS	SFP (1000Mbps)	4							
UPLINKS	10/100/1000T	2							
SECURITY	Upstream forwarding only								
SECURITY	ACL support								
QoS	Priority queues	8	8	8	8				
цuə	Priority scheduling	•							



the solution: the network Autumn 2011 | 33

Single

Single

Single

Single

Single

iMAP and iMG

The rapid changes from broadcast to on-demand video and from surfing the Web to content sharing have not only increased demands for bandwidth, but created greater needs to manage converged IP services. If a service provider is to capitalize on the revenue opportunities derived from multimedia services and satisfy consumer needs, an intelligent home gateway approach becomes essential. Moving from a "dumb pipe" to a service-oriented connection requires having both management and functionality at both the access side and terminal side. Whether a single-family home or MDU, with the home gateway located outdoors or within the residence, service providers need management, control and provisioning capabilities. Allied Telesis iMG products for DSL, Ethernet and fiber applications are designed as extensions of our access platform, with unified management, functionality and features.

		= nmn	= nmn	a- umin						
					iM	IGs				
SUBCATEGORY F	FEATURE	AT-iMG624A	iMG634 Series	iMG634W Series	AT-iMG606BD	iMG616 Series	AT-iMG616W	AT-iMG646BD	iMG616RF Series	
FAUADOMATATA Ir	Indoor usage	-		-		-			-	
ENVIRONMENTAL 0	Outdoor usage									
А	ADSL2+ Annex A	AT-iMG624A-R2	AT-iMG634A-R2	AT-iMG634WA-R2						
A	ADSL2+ Annex B		AT-iMG634B-R2	AT-iMG634WB-R2						
E	Ethernet 100Mbps copper	•								
E	Ethernet 100Mbps fiber (MMF)					AT-iMG616SH				
E	Ethernet 100Mbps fiber (SMF)					AT-iMG616LH				
UPLINK E	Ethernet 100Mbps fiber (BiDi)				AT-iMG616BD AT-iMG616BD-R2	AT-iMG616BD AT-iMG616BD-R2		-	•	
	Ethernet 100Mbps fiber (40 km BiDi)									
	Ethernet 100Mbps fiber SFP module									
E	Ethernet 1000Mbps fiber (BiDi)									
G	GEPON									
1	10/100TX	4	4	4	6	6	6	6	6	
1	10/100/1000T									
LAN INTERFACE W	Wireless IEEE 802.11b/g			•						
H	HPNA									
Н	HPNAv3.1									
T	T1/E1 CES									
WAN PORT C	Copper / fiber	Copper	Copper	Copper	Fiber	Fiber	Fiber	Fiber	Fiber	
CATV RF OVERLAY	Low output power								AT-iMG616RF	
H	High output power								AT-iMG616SRF+	
PHONE INTERFACES F.	FXS		2	2		2	2	4	2	
PHUNE INTERFACES	PSTN lifeline			•					•	
VoIP PROTOCOLS S	SIP / MGCP		•	-		•	•	•	•	
R	RS232 RJ-45 connector	•	•	•						
CONSOLE 8	B position mini DIN connector								•	
	USB									
0-0	EEE 802.1p priority queues	•	•	•		•		•	•	
QoS	EEE 802.1Q VLANs mgmt	-	-	-					-	
А	AlliedView NMS			-					•	
Т	TR-069									
MANAGEMENT S	SNMPv1, v2 and v3			-					-	
Т	Telnet, Web, GUI, CLI		-	-					-	
В	Remote software upgrade									
F	Fiber outlet kit AT-iMG001								•	
ACCESSORY B	Battery backup AT-iMG008									
	Outdoor case AT-EN646MOD									
	Outdoor case AT-EN-SFR-ONT									

Allied Telesis intelligent Multiservice Gateway (iMG) CPE products provide a smarter, more feature-rich and flexible approach to delivering subscriber services, and are critical to a service provider wanting to deliver reliable and high-quality revenue services. The iMG family of full-featured indoor and outdoor gateways support xDSL and fiber (FTTH) options, all designed with the features, management and IP functionality needed to deliver the "connected home." As the name implies, intelligent Multiservice Gateway products are full-featured products for delivering

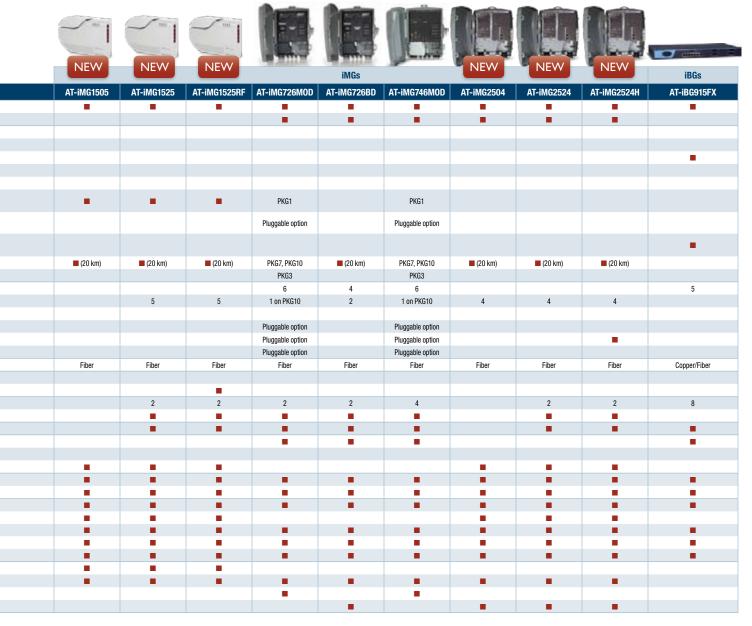
multimedia services such as broadcast and streaming IP video, Internet data and VoIP from a single subscriber line to multiple appliances in the home.

Feature and functionality between the iMAP access family and iMG home gateway family are intelligently integrated, along with AlliedView™ NMS for end-to-end management and diagnostics. This ensures every service is manageable all the way to the subscriber, eliminating the "holes" often caused by using "dumb" devices that merely terminate subscriber

lines. Consequently, less time is spent on provisioning, and unnecessary truck rolls during service life are reduced — leading to lower OPEX and greater customer satisfaction.

AlliedView NMS

Allied Telesis network management software tools can help you visualize and plan for network growth while maintaining the health and performance of your network. See page 63.





Media Converters

alliedtelesis.com/mediaconverters

Allied Telesis media converters extend network distances by adding fiber and VDSL (via coax and telephone-grade twisted pair) only where it is needed. This enables the addition of new devices without replacing costly cable, keeping pace with changing technology and integrating high-bandwidth devices into the network without changing the entire network infrastructure. From standalone units to chassis-based blades, Allied Telesis media converters are highly configurable to meet your needs.

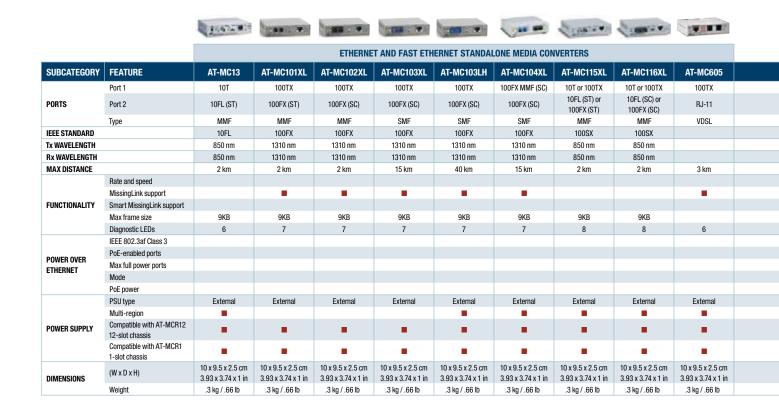
Allied Telesis offers three chassis-based systems:

- » The AT-MCR12 is a 12-slot chassis, which houses up to 12 of our best-selling media converters.
- » The AT-CV5001 is a managed 18-slot chassis fitting up to 18 blade-type media converters. This is our most configurable solution.
- » The AT-MCF2x00 is a two- or four-port managed chassis system. The two-port system can be configured to have up to 24 conversions in a 1 Rack Unit (IRU) chassis. The four-port system can have up to 48 conversions in a 3RU high system. Both models are stackable to add multiple units together as one IP address.

With so many products and configurations, it's easy to see why Allied Telesis is a worldwide leader in fiber to copper Ethernet media conversion.



Media Converters



Allied Telesis media converters enable the connection of disparate cabling types in networks where many cabling types exist. Network segments may also operate at different speeds and media converters can be used to convert between one speed and another. Typically, media converters are used to connect copper and fiber-optic cabling that coexist in a network. Converters exist in a variety of standalone, multi-port and modular forms. These different physical forms address the need for different applications and conversion densities.

MissingLink™

The Allied Telesis MissingLink feature enables a media converter to pass the link status of their connections and thereby trigger corrective action when a problem on a link is detected.

For example, if the twisted pair cable to the I0/I00TX port on an Allied Telesis media converter were to fail, the unit would respond by dropping the link on the I00FX fiber optic port.

Most managed devices, such as switches and routers, can be configured to take a specific recovery action in the event of the loss of connection on a port. In some cases, the unit can be configured to seek a redundant path to a disconnected end-node or send out a trap to a network management station, and so alert the network administrator of the problem.

Smart MissingLink™

The Allied Telesis Smart MissingLink feature has identical operation to MissingLink, with the added functionality that the media converter will also flash the link LED of the port with the link failure. This aids with diagnostics, allowing network administrators to more quickly locate, and rectify the fault.

Redundancy

In many cases, Allied Telesis media converters are critical components in a network carrying data between sites over long distances. It is imperative that all efforts are taken to ensure reliability of the network, and thus a network design with redundancy is mandatory. The components most likely to fail are the power supplies. The majority of Allied Telesis media converters can be deployed with hot-swappable, hot-removable power supplies to ensure maximum uptime.

Standalone Media Converters

			PoE							
1	TO THE	-	2 - 10 m	THE PERSON NAMED IN	THE PO	-	B. 10	10·1	NEW	NEW
ETHERNET AND FAST ETHERNET STANDALONE MEDIA CONVERTERS										DIA CONVERTERS
AT-MC606	AT-FS201	AT-FS202	AT-PC232/P0E	AT-FS232	AT-FS232/1	AT-FS232/2	AT-FS238A/1	AT-FS238B/1	AT-MC102XL-PCI	AT-MC102XL-PCle
100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	10/100TX	100TX	100TX
BNC	100FX (ST)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)	100FX (SC)
VDSL	MMF	MMF	MMF	MMF	SMF	SMF	BiDi - SMF	BiDi - SMF	MMF	MMF
	100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX	100FX
	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1310 nm	1310 nm
	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1310 nm	1550 nm	1310 nm	1310 nm	1310 nm
2.1 km	2 km	2 km	2 km	2 km	15 km	40 km	15 km	15 km	2 km	2 km
					•					
	1532 bytes	1532 bytes	1916 bytes	1532 bytes	1532 bytes	1532 bytes	1532 bytes	1532 bytes	9KB	9KB
6	7	7	13	9	9	9	9	9	7	7
			1							
			1							
			Α							
			15.4W							
External	External	External	Internal	External	External	External	External	External	PCI	PCle
	•	•			•	-	•	-		
	•	•			•	•	•	•		
10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	15.5 x 13.1 x 4 cm	10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	10 x 9.5 x 2.5 cm	12.5 x 6.4 cm	12.5 x 6.4 cm
3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	6.1 x 5.16 x 1.58 in	3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	3.93 x 3.74 x 1 in	4.9 x 2.5 in	4.9 x 2.5 in
.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.75 kg / 1.65 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.3 kg / .66 lb	.06 kg / .14 lb	.06 kg / .14 lb

		100 - W	AL THE	THE LAND	-	OF 19-15
			GIGABIT S	STANDALONE MEDIA CO	NVERTERS	
SUBCATEGORY	FEATURE	AT-MC1004	AT-MC1008/GB	AT-MC1008/SP	AT-GS2002/SP	AT-PC2002P0E
	Port 1	1000T	1000T	1000T	10/100/1000T	10/100/1000T
PORTS	Port 2	1000SX	GBIC	SFP	SFP	SFP 100 or 1000Mbps
	Fiber type	SC	SC*	LC*	LC*	LC*
IEEE STANDARD		1000SX	1000SX and LX	1000SX and LX	1000SX and LX	100FX and 1000X
Tx WAVELENGTH		850 nm	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
Rx WAVELENGTH		850 nm	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
MAX FIBER DISTANCI	<u> </u>	550 m	Depends on GBIC	Depends on SFP	Depends on SFP	Depends on SFP
	Rate and speed					
	MissingLink support	•				
FUNCTIONALITY	Smart MissingLink support		•	•		
	Max frame size	9KB	9KB	9KB	1536 bytes	1536 bytes
	Diagnostic LEDs	8	8	8	11	15
	IEEE 802.3af Class 3					
POWER OVER	PoE-enabled ports					1
ETHERNET	Max no. of full power ports					1
	PoE power					15.4W
	PSU type	External	External	External	External	Internal
POWER SUPPLY	Multi-region		•	•		
FUWEN SUFFLY	Compatible with AT-MCR12 12-slot chassis					
	Compatible with AT-MCR1 1-slot chassis	•				
DIMENSIONS	(W x D x H)	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	10 x 9.5 x 2.5 cm 3.93 x 3.74 x 1 in	15.5 x 13.1 x 4 cm 6.1 x 5.16 x 1.58 in
	Weight	.3 kg / .66 lb	.75 kg / 1.65 lb			

* Dependent on GBIC or SFP

PoE

Media Converters

Mounting Hardware

Mounting Options

The majority of unmanaged AT-MC, AT-GS and AT-FS Series media converters can be mounted in a number of ways to suit the installation.

Desktop

All Allied Telesis media converters have the option to be fitted with rubber feet. These allow the product to be desktop mounted.

Wall

A standalone media converter or switch can be easily mounted on a wall, or under a table using the AT-WLMT.

» AT-WLMT Wall mount fixture (supplied in packs of 10)



DIN Rail

The AT-DINRAILI is a universal bracket that allows a wide range of Allied Telesis media converters and media/rate converters to be mounted onto an industry-standard 35mm DIN Rail.

» AT-DINRAILI-010 Mounting kit (supplied in packs of 10)



Rack

All the larger multi-channel and modular media converters ship with 19" rack mount kits. Smaller media converters may also be rack mounted in a number of ways:

- » AT-MCRI chassis
 This small chassis can be rack mounted,
 and allows a single standalone media
 converter, or two-port switch, to be
- powered by an internal power supply. It is available with either AC or -48vDC power supply.
- » AT-MCR12 chassis
 This chassis allows up to 12
 standalone media converters
 or switches to be mounted in
 a chassis. The chassis supports
 optional redundant power supplies and can be AC or DC powered.
- » AT-TRAYI and AT-TRAY4 These simple trays allow from one to four standalone media converters to be mounted into a rack.

Universal Power Supply

For customers already using Allied Telesis media converters, replacement power adapters are available.

» AT-MCPWR Universal, high-efficiency external power adapter





The Converteon family provides the next generation of managed media conversion. Expandable from a single unit to a modular 18-slot chassis, Converteon primarily provides Fast Ethernet and Gigabit rate media conversion. Support for IEEE 802.3ah Ethernet in the First Mile (EFM) makes Converteon ideal for both service providers and enterprise.

AT-CVI000

1-slot

Features

- » External power adapter
- » Silent, fanless design
- » Standalone or wall mount



AT-CV1203

2-slots

Features

- » External power adapters (one as standard)
- » Resilient power adapters (AT-CVI200PSU)
- » Supports dying gasp
- » Standalone or wall mount



AT-CV5001

18-slot rack mount chassis

Features

- » Redundant power supply option
- » Optional Telnet and SNMP management (AT-CV5M02)
- » Optional redundant management with the addition of a second management module (AT-CV5M02)
- » Hot swappable blades
- » Field serviceable power supplies and fans
- » Hot swappable power supply modules (AT-CV5001AC-60 and AT-CV5001DC-80)
- » Resilient power supply modules (maximum of two)













				CONVERTEON MODULES		
SUBCATEGORY	FEATURE	AT-CM301	AT-CM302	AT-CM3K0S	AT-CM70S	AT-CV1KSS
	Port 1	10/100TX	10/100TX	10/100/1000T	4 x T1/E1 1 x 10/100TX	SFP
PORTS	Port 2	100FX (ST)	100FX (SC)	100 or 1000Mbps SFP	100Mbps SFP	SFP
	Fiber type	SMF	MMF	Depends on SFP	Depends on SFP	Depends on SFP
IEEE STANDARD		100FX	100FX	1000X		1000X
Tx WAVELENGTH		1310 nm	1310 nm			1310 nm
Rx WAVELENGTH		1310 nm	1310 nm			1310 nm
MAX FIBER DISTANCE		2 km	2 km	Depends on SFP	Depends on SFP	Depends on SFP
	Media type	•				•
	Rate and speed	-				
	MissingLink support					
FUNCTIONALITY	Smart MissingLink support	•				
	Max frame size	10KB	10KB	10KB	1535 bytes	9KB
	Diagnostic LEDs	9	9	9	23	7
	Rate limiting	I	I			•
0444	Dying gasp support					
OAM	Management	I	I		I	
ECO-FRIENDLY						
DIMENSIONS	(W x D x H)	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in	4.4 x 7.3 x 13 cm 1.71 x 2.89 x 5.1 in	2.2 x 7.3 x 13 cm .85 x 2.89 x 5.1 in
	Weight	27 kg / 06 lb	27 kg / 06 lb	27 kg / 06 lb	54 kg / 1 2 lb	27 kg / 06 lb

Chassis-Based Media Converters



AT-MCF2000

Multi-channel Manageable Media Converter

The AT-MCF2000 provides ultra high-density, modular, multi-channel media conversion, with high availability and is ideal for fiber deployments. The units can be used unmanaged, or SNMP managed with the installation of the optional management module.

- » Small, IRU chassis
- » High-density conversion, with up to 24 Fast Ethernet channels
- » Hot-swappable media blades (maximum of two)
- » Hot-swappable management module (AT-MCF2000M)
- » Stack multiple chassis using stacking modules (AT-MCF2000S)
- » Hot-swappable power supply modules (AT-MCF2000AC)
- » Resilient power supply modules
- » Operates in unmanaged and managed modes

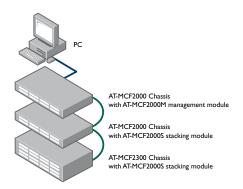


AT-MCF2300

4-slot Chassis

The AT-MCF2300 is an end-to-end managed media conversion system. The 3RU chassis can hold one to four multichannel blades, providing a maximum of 48 independent channels. An optional management module provides control of the chassis, while dual hot-swappable power modules ensure maximum system uptime.

- » 3RU chassis
- » High-density conversion, with up to 48 Fast Ethernet channels
- » Hot-swappable media blades (maximum of four)
- » Hot-swappable management module (AT-MCF2000M)
- » Stack multiple chassis using stacking modules (AT-MCF2000S)
- » Hot-swappable power supply modules (AT-MCF2300AC)
- » Resilient power supply modules
- » Operates in unmanaged and managed modes



Stacking AT-MCF2xxx Chassis

The AT-MCF2000 and AT-MCF2300 can be stacked together to provide a single management entity for the complete stack of up to eight chassis or a maximum of 16 media blades. One chassis has a SNMP management module installed, and this interconnects with the other chassis that are all fitted with a stacking module.



SUBCATEGORY	FEATURE	AT-MCF2012LC	AT-MCF2012LC/1	AT-MCF2032SP	
	Port 1	12 x 10/100TX	12 x 10/100TX	12 x 10/100/1000T	
PORTS IEEE STANDARD Tx WAVELENGTH Rx WAVELENGTH	Port 2	12 x 100FX (LC)	12 x 100FX (LC)	12 x SFP	
	Fiber type	MMF	SMF	Depends on SFP	
IEEE STANDARD		100FX	100FX	100 or 1000X	
Tx WAVELENGTH		1310 nm	1310 nm	Depends on SFP	
Rx WAVELENGTH		1310 nm	1310 nm	Depends on SFP	
MAX FIBER DISTANCE		2 km	15 km	Depends on SFP	
	Media type	•	•	-	
	Rate and speed	•	•	=	
TUNOTION AL ITY	MissingLink support	•	•		
FUNCTIONALITY	Smart MissingLink support	•	•		
	Max frame size	1632 bytes	1632 bytes	10KB	
	Diagnostic LEDs	•	•	-	
DIMENSIONS	(W x D x H) AT-MCF2000	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	46 x 44 x 4.4 cm 18 x 17.3 x 1.73 in	
	Weight	8.5 kg / 18.74 lb	8.5 kg / 18.74 lb	8 5 kg / 18 7/ lb	

Allied Telesis pluggable optical modules provide fiber and copper connectivity for our full range of product lines. Optical modules allow one product the flexibility to expand by media type (copper or fiber), speed (Fast Ethernet, Gigabit or 10 Gigabit), and/or distance (220 m to 80 km). Allied Telesis offers GBIC, SFP, XFP and SFP+ pluggable modules which comply with industry-standard networking regulations. This compliance allows Allied Telesis modules to be used on any industry-standard networking equipment.



Optical Modules

SFP Series (SP)

The SP Series offers the latest industry standard in flexible, full-duplex Ethernet connectivity. These hot-swappable, fiber interfaces simply plug into an SFP slot on Allied Telesis products that are SFP compatible. Configurations can be optimized to meet varied distance and service requirements.

XFP Series (XP)

The XP Series offers the latest industry-standard 10 Gigabit Ethernet connectivity in a flexible, small form-factor. These hot-swappable optical interfaces simply plug into an XFP slot in any compatible Allied Telesis product for simple migration to 10 Gigabit data rates.

GBIC Series (G8)

The G8 Series offers the latest industry standard in flexible, full-duplex Gigabit Ethernet connectivity. These hotswappable, fiber and copper interfaces simply plug into a GBIC slot on Allied Telesis GBIC-compatible products. Configurations can be optimized to meet varied distance and service requirements.











			GIGABIT FIBER OPTICS			
SUBCATEGORY	AT-SPSX	AT-SPSX/I	AT-G8SX	AT-SPEX	AT-SPLX10	
FORM FACTOR	SFP	SFP	GBIC	SFP	SFP	
FIBER TYPE	MMF	MMF	MMF	MMF	SMF	
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	
SPEED	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	
DIGITAL DIAGNOSTICS MONITORING (DDM)						
Rx WAVELENGTH	850 nm	850 nm	850 nm	1310 nm	1310 nm	
Tx WAVELENGTH	850 nm	850 nm	850 nm	1310 nm	1310 nm	
MAX FIBER DISTANCE	220 / 550 m	220 / 550 m	220 / 550 m	2 km	10 km	
CONNECTOR TYPE	LC	LC	SC	LC	LC	
TEMPERATURE	0°C to 70°C	-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	









	FAST ETHERNET FIBER OPTICS						
SUBCATEGORY	AT-SPFX/2	AT-SPFXBD-LC-13	AT-SPFXBD-LC-15	AT-SPFX/15			
FORM FACTOR	SFP	SFP	SFP	SFP			
FIBER TYPE	MMF	SMF	SMF	SMF			
NUMBER OF FIBERS	2 (Rx, Tx)	1 (BiDi) 1 (BiDi)		2 (Rx, Tx)			
SPEED	100Mbps	100Mbps	100Mbps	100Mbps			
DIGITAL DIAGNOSTICS MONITORING (DDM)							
Rx WAVELENGTH	1310 nm	1510 nm	1310 nm	1310 nm			
Tx WAVELENGTH	1310 nm	1310 nm	1510 nm	1310 nm			
MAX FIBER DISTANCE	2 km	10 km	10 km	15 km			
CONNECTOR TYPE	LC	LC - BiDi	LC - BiDi	LC			
TEMPERATURE	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C			





	COPPER			
SUBCATEGORY	AT-SPTX	AT-G8T		
FORM FACTOR	SFP	GBIC		
SPEED	10/100/1000T	10/100/1000T		
MAX COPPER DISTANCE	100 m	100 m		
CONNECTOR TYPE	RJ-45	RJ-45		
TEMPERATURE	0°C to 70°C	0°C to 70°C		

SPI0 Series (SFP+)

The SP10 Series offers customers a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise, and service provider transport applications. These hot-swappable devices plug into an Ethernet SFP+ port and have the smallest 10G form factor in the industry. Configurations can be optimized to meet varied distance and service requirements.

Pluggable Optical Modules

Fiber Distances

Customers moving to Gigabit (1000Mbps) may find that existing multi-mode fiber may not be suitable for their network, as the distance required is over 220 m. Allied Telesis recommends using the AT-SPEX optical transceiver, which uses non-standard optics, but supports the 2 km distance.

IEEE 802.3 Ethernet specification for networks over multi-mode fiber

Standard	Speed	Max Distance (MMF)
10FL	10Mbps	2 km
100FX	100Mbps	2 km
1000SX	1000Mbps	220 m













		GIGABIT FIE	BER OPTICS		
AT-SPLX10/I	AT-G8LX10	AT-SPBD10-13	AT-SPBD10-14	AT-SPLX40	AT-SPZX80
SFP	GBIC	SFP	SFP	SFP	SFP
SMF	SMF	SMF	SMF	SMF	SMF
2 (Rx, Tx)	2 (Rx, Tx)	1 (BiDi)	1 (BiDi)	2 (Rx, Tx)	2 (Rx, Tx)
1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps
•					
1310 nm	1310 nm	1490 nm	1310 nm	1310 nm	1550 nm
1310 nm	1310 nm	1310 nm	1490 nm	1310 nm	1550 nm
10 km	10 km	10 km	10 km	40 km	80 km
LC	SC	LC - BiDi	LC - BiDi	LC	LC
-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C	0°C to 70°C









	10 GIGABIT FIBER OPTICS (XFP)						
SUBCATEGORY	AT-XPSR	AT-XPLR	AT-XPER40	AT-XPER80			
FORM FACTOR	XFP	XFP	XFP	XFP			
FIBER TYPE	MMF	SMF	SMF	SMF			
NUMBER OF FIBERS	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)	2 (Rx, Tx)			
SPEED	10G	10G	10G	10G			
DIGITAL DIAGNOSTICS MONITORING (DDM)	•	•					
Rx WAVELENGTH	850 nm	1310 nm	1550 nm	1550 nm			
Tx WAVELENGTH	850 nm	1310 nm	1550 nm	1550 nm			
MAX FIBER DISTANCE	300 m	10 km	40 km	80 km			
CONNECTOR TYPE	LC	LC	LC	LC			
TEMPERATURE	0°C to 70°C	0°C to 70°C	-5°C to 70°C	-5°C to 70°C			









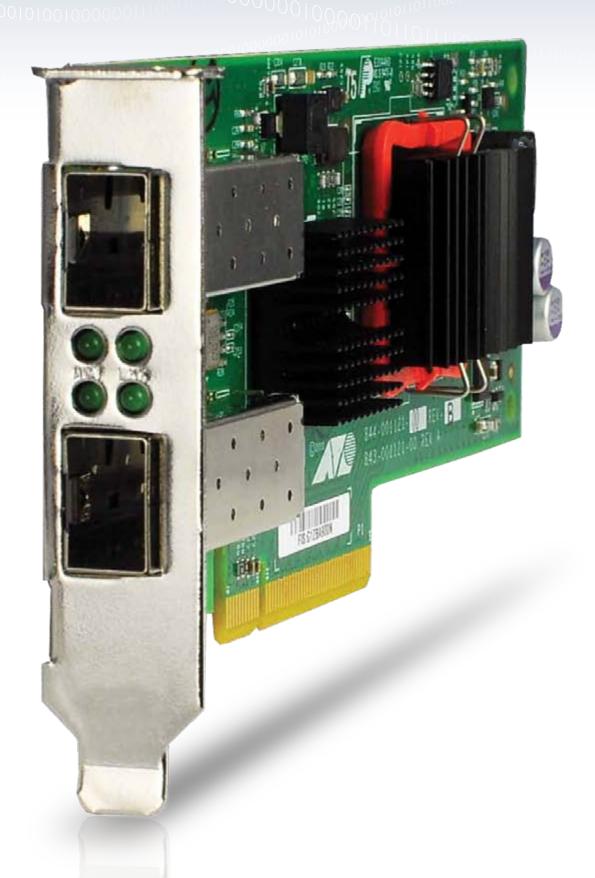








				10 GIGABIT FIBE	K UPTICS (SFP+)			
SUBCATEGORY	AT-SP10SR	AT-SP10LR	AT-SP10LR/I	AT-SP10LR20/I	AT-SP10ER40/I	AT-SP10TW1	AT-SP10TW3	AT-SP10TW7
FORM FACTOR	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+
FIBER TYPE	MMF	SMF	SMF	SMF	SMF			
COPPER TYPE						Twinax	Twinax	Twinax
NUMBER OF FIBERS	2	2	2	2	2			
SPEED	10G	10G	10G	10G	10G	10G	10G	10G
DIGITAL DIAGNOSTICS MONITORING (DDM)		-	-					
Rx WAVELENGTH	850 nm	1310 nm	1310 nm	1310 nm	1310 nm			
Tx WAVELENGTH	850 nm	1310 nm	1310 nm	1310 nm	1310 nm			
MAX DISTANCE	300 m	10 km	10 km	20 km	40 km	1 m	3 m	7 m
CONNECTOR TYPE	LC	LC	LC	LC	LC			
TEMPERATURE	0°C to 70°C	0°C to 70°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	0°C to 70°C	0°C to 70°C	0°C to 70°C



Network Interface Cards

alliedtelesis.com/nics

Allied Telesis continues to expand our Network Interface Card portfolio. From 10Mbps to 10 Gigabit, the aim of Allied Telesis is to seamlessly connect your desktops, laptops and servers. Our NICs are high-quality, reliable and cost-effective.

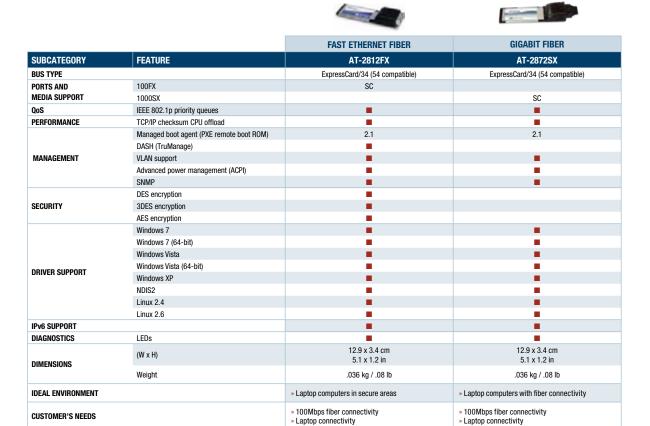
With the addition of our latest line of multi-port Gigabit and IO Gigabit server Network Interface Cards (2973 Series and AT-VNCIOS), Allied Telesis has optimized our NICs for virtualization. Using multi-port cards in virtualized environments is critical to applications in order to provide redundancy and data connectivity for these workloads. The priority queuing offered by Allied Telesis server NICs can help you set-up your network based on your own needs. The comprehensive diagnostics and configuration software suite (Broadcom

Advanced Control Suite) provides system administrators and engineers with a profound tool to analyze the interface card to check specific data.

As the worldwide leader in fiber Network Interface Cards Allied Telesis continues to offer the highest-quality cards at competitive prices. All Allied Telesis server NICs are Citrix, VMware and Microsoft Hyper-V qualified.

Network Interface Cards

Laptop NICs



Managed Boot Agent (MBA) Support

MBA support on Allied Telesis NICs allows network administrators to perform preboot procedures on a system, such as installing an operating system, running a virus checker or downloading a predefined system configuration. This feature, coupled with the Wake-on-LAN (WoL) function, allows computers to be remotely poweredon during non-work hours to perform configuration and maintenance tasks. Preboot Execution Environment (PXE) support is included in Allied Telesis NICs. It allows a workstation or computer to boot from a remote server connected to the network prior to booting from the local hard drive.

Network Security

Although fiber optic networking provides a much higher level of network security than copper, security can be further enhanced by encrypting the data being transmitted. Allied Telesis security cards perform high levels of encryption/decryption, freeing the host CPU of this performance-intensive task.

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Copper Desktop/Workstation NICs

				. E	NO	TO	TO
			_			NEW	NEW
		COPPER			COPPER AND FIBER		
SUBCATEGORY	FEATURE	AT-2912T	AT-2451FTX	AT-2701FTX	AT-2716P0E/FX	AT-2911GP/SX	AT-2911GP/LX
BUS TYPE		PCle (x1)	PCI (32-bit)	PCI (32-bit)	PCle (x1)	PCle (x1)	PCle (x1)
	10/100TX			•	_	_	_
	10/100/1000TX Class 3 PoE				•	•	•
PORTS AND Media Support	10/100/1000T	•	00.07				
WEDIA SUFFUNI	10FL 100FX		SC, ST	MT, SC, ST	SC, ST		
	1000X			WII, 50, 51	50, 51	SC, LC	SC, LC
FIBER TYPE	10007		MMF	MMF	MMF	MMF	SMF
MAX FIBER DISTANCE			2 km	2 km	2 km	220 m	10 km
QoS	IEEE 802.1p priority queues						
	TCP/IP checksum CPU offload	_		_	_		_
DEDECORATION	Jumbo frames				•		
PERFORMANCE	Link aggregation support						
	Link aggregation failover				•	•	
	Wake-on-LAN		•		•		
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1	2.1
MANAGEMENT	DASH (TruManage)	•					
WANAGEWENT	VLAN support	•		•	•		
	Advanced power management (ACPI)	•	•	•	•	•	•
	SNMP	•			•	•	
	DES encryption	•					
SECURITY	3DES encryption						
	AES encryption						
	Windows 7 (32 and 64-bit)	•			•	•	
	Windows 2008	_			•		_
	Windows Vista (32 and 64-bit)	_	•	_	•	•	_
	Windows XP	•					-
DRIVER SUPPORT	Windows XP (64-bit) Windows 2003	•		•	-	•	•
DRIVER SUFFURI	Windows 2003 (64-bit)	-	-				
	NDIS2						•
	NetWare 6.x	-	-		_	_	_
	Linux 2.4						
	Linux 2.6			•			
IPv6 SUPPORT							
DIAGNOSTICS	LEDs	•	•	•	•	•	•
DIAGNUSTICS	Virtual cable tester						
PHYSICAL	Low profile bracket and full height provided		•	•	•	•	•
DIMENSIONS	(W x H)	10.7 x 5.7 cm 4.2 x 2.2 in	16.8 x 6.5 cm 6.6 x 2.56 in	16.8 x 6.5 cm 6.6 x 2.56 in	14.1 x 5.6 cm 5.6 x 2.2 in	14.1 x 5.6 cm 5.6 x 2.2 in	14.1 x 5.6 cm 5.6 x 2.2 in
	Weight	.04 kg / .05 lb	.07 kg / .15 lb	.07 kg / .15 lb	.068 kg / .15 lb	.068 kg / .15 lb	.068 kg / .15 lb
IDEAL ENVIRONMENT		» Desktop computers in ultra secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port	» Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port	» Desktop computers with fiber interfaces that want to power a PoE phone (or other device) from the secondary port
CUSTOMER'S NEEDS		» Data encryption	» 10Mbps fiber connectivity » Choice of fiber or copper interfaces	» 100Mbps fiber connectivity » Choice of fiber or copper interfaces	» PoE	» PoE	» PoE

Network Interface Cards

Jumbo Frames Support

Normal Ethernet packets are limited to a maximum size of 1548 bytes. Received packets larger than this are normally rejected by the interface card as errors. Jumbo frames support is beneficial to sending large packets, especially where the data contained in these packets either has a time-critical element, or is so large that the time taken to send multiple smaller packets is too great. Jumbo frame packets are normally up to 9000 bytes long.

Long Distance Fiber

With the introduction of single-mode fiber Network Interface Cards, Allied Telesis has now extended the size of a fiber network from up to two kilometers over multimode fiber, to up to 20 kilometers for Fast Ethernet, and 10 km for Gigabit Ethernet.



I O	TO
NEW	NEW

				GIGABIT FIBER	NEVV	NEVV	
SUBCATEGORY	FEATURE	AT-2916SX	AT-2916LX10	AT-2931SX	AT-2911SX	AT-2911LX	
BUS TYPE	_	PCI (32-bit)	PCI (32-bit)	PCI-x (32/64-bit)	PCle (x1)	PCle (x1)	
	10FL	, ,	` '	, ,		,	
PORTS AND	100FX						
MEDIA SUPPORT	1000SX	LC, SC	LC	LC, SC	LC, SC	LC, SC	
FIBER TYPE		MMF	SMF	MMF	MMF	SMF	
MAX FIBER DISTANCE		220 m	10 km	220 m	220 m	10 km	
QoS	IEEE 802.1p priority queues						
	TCP/IP checksum CPU offload						
	Jumbo frames					•	
PERFORMANCE	Link aggregation support					•	
	Link aggregation failover					•	
	Teaming						
	Wake-on-LAN						
	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1	
MANAGEMENT	DASH (TruManage)						
	VLAN support						
	Advanced power management (ACPI)				•	•	
	SNMP						
	DES encryption						
SECURITY	3DES encryption						
	AES encryption						
	Windows 7 (32 and 64-bit)						
	Windows 2008 (32 and 64-bit)				•	•	
	Windows Vista (32 and 64-bit)						
	Windows XP (32 and 64-bit)				•	•	
	Windows 2003 (32 and 64-bit)						
DRIVER SUPPORT	Windows 2000				•	•	
	NDIS2						
	NetWare 6.x				•	•	
	Linux 2.4						
	Linux 2.6				•	•	
IPv6 SUPPORT		•					
DIAGNOSTICS	LEDs	•		•	•	•	
PHYSICAL	Low profile bracket and full height provided						
DIMENSIONS	(W x H)	11.9 x 6.4 cm 4.68 x 2.5 in	11.9 x 6.4 cm 4.68 x 2.5 in	16.8 x 6.4 cm 6.6 x 2.5 in	9 x 6.9 cm 3.6 x 2.7 in	9 x 6.9 cm 3.6 x 2.7 in	
J2.1010110	Weight	.06 kg / .13 lb	.06 kg / .13 lb	.07 kg / .15 lb	.06 kg / .13 lb	.06 kg / .13 lb	
IDEAL ENVIRONMENT		» Desktop computers in secure areas	» Desktop computers in secure areas	» Service requiring Gigabit connectivity		» Service requiring Gigabit connectivity	
CUSTOMER'S NEEDS		» Performance	» Performance » Long distance networking	» High performance » Load balancing » Redundant links	» High performance » Load balancing	» High performance » Load balancing » Long distance networking	

50 | Allied Telesis Product Catalog

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Fiber Desktop/Workstation NICs

Advanced Power Management (ACPI)

ACPI is part of the environmental control initiative for computers. Allied Telesis NICs support ACPI, which places the system in a low power state when it is not receiving or transmitting data.

Wake-on-LAN (WoL)

Wake-on-LAN is a feature of interface cards that allows a computer fitted with a card to be remotely powered-on. The computer receives a special data packet via the network port that will cause the computer to boot. This, coupled with PXE support, allows network administrators to gain complete access to all computers on their network.













		FAST ETHE	RNET FIBER		
AT-2701FX	AT-2701LX20	AT-2711FX	AT-2712FX	AT-2712LX20	AT-2746FX
PCI (32-bit)	PCI (32-bit)	PCle (x1)	PCle (x1)	PCle (x1)	PCI (32-bit)
					SC, ST
MT, SC, ST	SC	MT, SC, ST	SC	SC	SC, ST
MMF	SMF	MMF	MMF	SMF	MMF
2 km	20 km	2 km	2 km	20 km	2 km
•	•	•	•	•	•
_	_				_
•	•				-
•	•	•	•	•	
2.1	2.1	2.1	2.1	2.1	2.1
				•	
•	•			•	•
		•	•	•	
_	_	_	<u> </u>		_
		_	_	_	
					•
-				•	
	•	•			
•	•	•	•	•	
•	•	•		•	•
16.8 x 6.5 cm 6.6 x 2.56 in	16.8 x 6.5 cm 6.6 x 2.56 in	12.1 x 6.9 cm 4.76 x 2.71 in	10.7 x 4.2 cm 5.6 x 2.2 in	10.7 x 4.2 cm 5.6 x 2.2 in	17.7 x 8.3 cm 7 x 3.25 in
.07 kg / .15 lb	.07 kg / .15 lb	.04 kg / .11 lb	.05 kg / .09 lb	.05 kg / .09 lb	.09 kg / .19 lb
» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas	» Desktop computers in secure areas
» 100Mbps fiber connectivity » Modern PCIe computer	» 100Mbps fiber connectivity » Modern PCIe computer » Long distance networking	» 100Mbps fiber connectivity » Choice of fiber or copper interfaces	» Highly secure environment	» Highly secure environment » Long distance networking	» 10Mbps fiber connectivity » 100Mbps fiber connectivity

Server NICs

Network Virtualization

The 2973 Series of Network Interface Cards has been specifically designed for use in a virtualized environment. The cards interact directly with the virtualization hypervisor software, offloading many of the interface tasks from the main CPU, thus increasing the overall performance of the virtual machine.

The AT-VNCIOS 10 Gigabit interface card provides improved performance with the next generation technology — VMware Direct Path, NetQueue, SR-IOV — that includes features such as loopback (inter-VM communication), priority-weighted bandwidth management and doubling the number of data queues per port from four to eight. Also supported is multicast and broadcast data on a virtualized server.

Superior Functionality

The AT-VNCIOS includes dedicated hardware and processors to process frames at the highest levels in the operating system for both transmit and receive paths — advantageous for virtualization applications.

The AT-VNCIOS enables convergence of all the networked communications possible in a server, such as data (LAN), storage networks (iSCSI) and clustering.













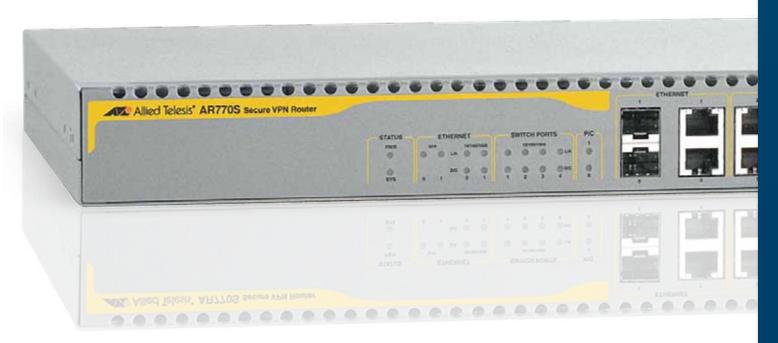


		GIGABIT COPPER				SFP+ 10 GIGABIT	
SUBCATEGORY	FEATURE	AT-2972SX	AT-2972LX10	AT-2973SX	AT-2973T	AT-2973T/4	AT-VNC10S
BUS TYPE		PCIe (x4)	PCIe (x8)				
	10/100/1000T				(2 ports)	(4 ports)	
20220 442	1000X	LC	LC	LC (2 ports)			
PORTS AND MEDIA SUPPORT	SFP+						(2 ports)
WEDIA SUFFUNI	Fiber type	MMF	SMF	MMF			MMF, SMF
	Max fiber distance	220 m	10 km	220 m			Dep. on SFP
QoS	IEEE 802.1p priority queues						
	TCP/IP checksum CPU offload				•		•
	Jumbo frames	•		•	•		•
PERFORMANCE	Link aggregation support		•	•		•	•
PERFURMANCE	Link aggregation failover	•		•	•		•
	TOE			•		•	•
	iSCSI				•		
	Wake-on-LAN						
MANAGEMENT	Managed boot agent (PXE remote boot ROM)	2.1	2.1	2.1	2.1	2.1	2.1
	VLAN support			•			•
	Advanced power management (ACPI)	•	•	•	•	•	•
	SNMP						•
	Windows 7 (32 and 64-bit)				•		
	Windows 2008 (32 and 64-bit)			•			•
DRIVER SUPPORT	Windows Vista (32 and 64-bit)				•		
DRIVER SUFFORT	Windows 2003 (32 and 64-bit)	•					•
	Linux 2.4				•		
	Linux 2.6						
IPv6 SUPPORT							
DIAGNOSTICS	LEDs	•					•
DIAGNOSTICS	Virtual cable tester						
PHYSICAL	Low profile bracket and full height provided	•	•	•			•
DIMENSIONS	(W x H)	16.8 x 6.8 cm 6.6 x 2.7 in	16.8 x 6.8 cm 6.6 x 2.7 in	14.5 x 5.7 cm 5.7 x 2.2 in	14.5 x 5.7 cm 5.7 x 2.2 in	15.3 x 11.1 cm 6.03 x 4.38 in	16 x 6.89 cm 6.3 x 2.71 in
	Weight	.06 kg / .13 lb	.06 kg / .13 lb	.05 kg / .09 lb	.05 kg / .09 lb	.10 kg / .23 lb	.09 kg / .21 lb
IDEAL ENVIRONMENT		» Virtualization servers					
CUSTOMER'S NEEDS		» High performance with low CPU utilization					



Allied Telesis WAN and Internet multiservice access routers include solutions for TI/EI, ISDN, xDSL and leased-line connections.

The comprehensive, high-performance Allied Telesis AR Series features hardware and software functions such as advanced routing, QoS, IPv6 and advanced security including Stateful Inspection Firewall and VPN services. AR Series routers are able to deliver the breadth of functionality that small and medium-sized businesses require at a price point they can afford, and with a confirmed reliability that makes Allied Telesis your most trusted networking partner.







SECURE MODULAR VPN ROUT	ERS
-------------------------	-----

SECURE MODULAR VPN ROUTERS				
SUBCATEGORY	FEATURE	AT-AR415S	AT-AR750S	
FORM FACTOR		» Desktop » Rack mountable	» Desktop » Rack mountable	
	10/100TX	1 (WAN) + 4 (LAN)	2 (WAN) + 5 (LAN)	
	10/100/1000T			
PORTS AND	SFP			
MEDIA SUPPORT	xDSL (WAN)			
	Async port	1	1	
	PIC bays (unpopulated)	1	2	
	T1/E1 WAN	AT-AR020	AT-AR020	
OPTIONAL	BRI - ISDN (S/T)	AT-AR021S	AT-AR021S	
PIC CARDS	2Mbps sync port	AT-AR023	AT-AR023	
I IO OAIIDO	4 x async	AT-AR024	AT-AR024	
	2 x FXS VoIP	AT-AR027		
POWER SUPPLY		Fixed internal	Fixed internal	
ENVIRONMENTAL	In/outdoor usage	Indoor	Indoor	
LINVIA UNIVIEW I AL	Temperature range	0°C to 40°C	0°C to 40°C	
	Web	•	•	
MANAGEMENT	CLI access	Async, Telnet	Async, Telnet	
WANAGEWENT	SNMP	v2 and v3	v2 and v3	
	UPnP	•		
NETWORK RESILIENCE	VRRP			
	IEEE 802.1p priority queues		•	
QoS	Queueing mechanisms			
	Priority mechanisms		•	
	IEEE 802.1Q VLANs	64	64	
	RADIUS	•	•	
OF OUR ITY	SSL			
SECURITY	IEEE 802.1x			
	DoS protection			
	Firewall	4000 sessions (AT-FL18B)		
		8000 sessions (AT-FL18C)		
	DMZ	•	•	
	MAC filter	•		
	IP / TCP / UDP filter	•	•	
	URL filter	•		
OTHER	Peer-to-peer protocols detection	•		
	Encryption (DES, 3DES, AES)	•		
	VPN concurrent tunnels	1 - standard 5 - AT-FL19B, 10 - AT-FL19C 25 - AT-FL19D, 50 - AT-FL19E	250	
	RIPv1 and v2	•	•	
	IPv4	•	•	
	IPv6	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD	
	OSPF			
	NAT / NAPT	•	•	
ROUTING	NAT VPN pass-through (sessions)			
	PPPoE / PPTP / L2TP	•	•	
	DHCP client / server / relay			
	WAN load balancing	AT-FL15 (option)	Included	
	Server load balancing	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD	
	BGP-4	AT-AR400-ADVLDUPGRD	AT-AR700-ADVL3UPGRD	
		30.5 x 19 x 4.5 cm	30.5 x 19 x 4.4 cm	
DIMENSIONS	(W x D x H)	12 x 7.48 x 1.77 in	12 x 7.48 x 1.73 in	
	Weight	1.75 kg / 3.85 lb	1.92 kg / 4.23 lb	
IDEAL ENVIRONMENT	-	» Medium business	» Medium business	
CUSTOMER'S NEEDS		» Remote access	» Remote access	

54 | Allied Telesis Product Catalog

Routers









SECURE GIGABIT MODULAR VPN ROUTER			
AT-AR770S	AT-AR440S	AT-AR441S	AT-AR442S
	» Desktop	» Desktop	» Desktop
» Desktop	» Wall mountable	» Wall mountable	» Wall mountable
» Rack mountable	» Rack mountable	» Rack mountable	» Rack mountable
	5 (LAN)	5 (LAN)	5 (LAN)
2 (WAN) + 4 (LAN)	o (E iii)	0 (5111)	5 (B#¥)
2 (combo) 100 or 1000Mbps			
2 (0011100) 100 01 1000111000	ADSL2/2+ (Annex A)	ADSL2/2+ (Annex B)	SHDSL
1	1	1	1
2	1	1	1
AT-AR020	AT-AR020	AT-AR020	AT-AR020
AT-AR021S	AT-AR021S	AT-AR021S	AT-AR021S
AT-AR023	AT-AR023	AT-AR023	AT-AR023
AT-AR023	AT-AR023	AT-AR024	AT-ARIO23
A1-ANU24	AT-AR024 AT-AR027	AT-AN024 AT-AR027	AT-AR024 AT-AR027
Fixed internal			
 Fixed internal	Fixed internal	Fixed internal	Fixed internal
Indoor	Indoor	Indoor	Indoor
0°C to 40°C	0°C to 50°C	0°C to 50°C	0°C to 50°C
		. •	
Async, Telnet	Async, Telnet	Async, Telnet	Async, Telnet
v2 and v3	v2 and v3	v2 and v3	v2 and v3
•	•		•
•	•	•	•
	•		•
•	•	•	•
64	64	64	64
•	•	•	•
•	•	•	•
•	•		•
•	•	•	•
	•		4000 sessions
<u> </u>	-		8000 sessions (AT-FL18C)
	•	•	
	•	•	•
•	•		•
•	.		•
•	•	•	•
	•	•	•
1000	100	100	100
•		•	•
			•
AT-AR700-ADVL3UPGRD	AT-AR400-ADVLDUPGRD	AT-AR400-ADVLDUPGRD	AT-AR400-ADVLDUPGRD
•	•	•	•
•			
-	-		_
•	-		
	-		
Included	AT-FL15 (option)	AT-FL15 (option)	AT-FL15 (option)
AT-AR700-ADVL3UPGRD	AT-AR400-ADVLDUPGRD	AT-AR400-ADVLDUPGRD	AT-PLTS (OPHOT) AT-AR400-ADVLDUPGRD
AT-AR700-ADVL3UPGRD 44 x 23.9 x 4.4 cm	AT-AR400-ADVLDUPGRD	AT-AR400-ADVLDUPGRD	AT-AR400-ADVLDUPGRD 33.5 x 18 x 4.5 cm
	33.5 x 18 x 4.5 cm	33.5 x 18 x 4.5 cm 13.18 x 7 x 1.77 in	
17.3 x 9.4 x 1.73 in 2.95 kg / 6.5 lb	13.18 x 7 x 1.77 in 1.96 kg / 4.32 lb	1.96 kg / 4.32 lb	13.18 x 7 x 1.77 in 1.96 kg / 4.32 lb
	_		
» Large business	» Branch office	» Branch office	» Branch office
» Remote access	» Head office connectivity	» Head office connectivity	» Head office connectivity



56 | Allied Telesis Product Catalog



MEMBES



Allied Telesis wireless products provide customers with the highest performance and compliance to today's standards, for unmatched investment protection in the wireless marketplace. All Allied Telesis wireless solutions offer "best-of-breed" performance, especially when security features and authentication protocols are required for network robustness. Advanced software features and a broad range of accessories provide high-end functionality from SOHO to enterprise-class networks.

Enterprise

Allied Telesis wireless access points and switches for Enterprise networks feature enhanced security and Quality of Service as well as multiple and extended operating modes.

Small and Medium Business

Allied Telesis designs wireless products for Small Office / Home Office (SOHO) to Small-Medium Business (SMB) network needs.

Wireless Clients

Allied Telesis wireless clients provide laptop and desktop PC users a flexible and nomadic access to high-speed wireless networks.

Accessories

Allied Telesis offers a variety of accessories to complete our wireless product offering, including antennas, power supplies, service modules, splitters, mounting hardware and cabling.

Autumn 2011 | 57 the solution: the network







		ACCESS POINT	S AND ROUTERS	BASE STATION
SUBCATEGORY	FEATURE	AT-WR2304N	AT-TQ2403	AT-WR4562
FORM FACTOR	·	» Wall mountable	» Wall mountable	» Wall mountable
Olim FAOTOII		» Desktop	» Desktop	» Pole mountable
	Ethernet	1 x 10/100TX (WAN); 4 x 10/100TX (LAN)	1 x 10/100TX	1 x 10/100TX
PORTS AND	Serial		1	
MEDIA SUPPORT	USB			
	Wireless radio	1 x IEEE 802.11b/g/n (2T2R MIM0 : 300Mbps)	2 x IEEE 802.11a/b/g/h	1 x IEEE 802.11a/b/g/h
POWER SUPPLY		External	External or IEEE 802.3af PoE (PD)	IEEE 802.3af PoE (PD)
ENVIRONMENTAL	Indoor / outdoor usage	Indoor	Indoor	Outdoor (IP67)
	Temperature range	0°C to 45°C	0°C to 40°C	-30°C to 65°C
SCALABILITY	Clustering		15 (without wireless VLAN) 8 (with 4 wireless VLANs)	
	Web GUI	HTTP, HTTPS	HTTP, HTTPS	HTTP, HTTPS
	CLI access	niir, niirs	Telnet, SSH	MAC Telnet, Telnet, SSH
MANAGEMENT	SNMP	v1 v2o	·	
		v1, v2c	v1, v2c	v1, v2c, v3
NETWORK RESILIENCE	UPnP	-		CTD DCTD LACD VDDD
			_	STP, RSTP, LACP, VRRP
QoS	DADIUG / IEEE 000 4 / 400	•		_
	RADIUS / IEEE 802.1x / SSL		_	DEC 2052 452
	Encryption	AES	AES	DES, 3DES, AES
	DoS protection			
	Firewall	•		
	DMZ			
	NAT / NAPT	•		•
SECURITY	ALG	•		•
	VPN pass-through	Multiple sessions		•
	Filtering	•	•	•
	MAC address	•	•	•
	IP	•		•
	TCP / UDP port	•		•
	URL	•		•
	Peer-to-peer protocol			
	MAC cloning	•		
BRIDGING	PPPoE / PPTP / L2TP	•		•
mbuntu	VLAN		•	•
	VLAN bridging			
	IPv4	•		•
OUTING	IPv6			•
iooriiiu	Supported protocols	Static routing		Static routing, OSPFv2, RIPv1, RIPv2
	Multicast support			PIM, IGMP
	IEEE 802.11e (QoS)	WMM only	WMM only	•
	IEEE 802.11i (security)	•	=	•
	Mode: ad-hoc	•	=	•
	Mode: infrastructure	Access point, station	Access point, station	Access point, station
	Wireless Distribution System (WDS)	•	=	•
	Wireless Protected Setup (WPS)			
	Wireless Virtual LAN		=	•
/IRELESS	Captive portal		=	•
	Dynamic channel planning	■		
	Multiple SSID	4	32	128
	Regulatory domain compliance		■	•
	Rogue AP detection		=	•
	Antenna	2 x 2.4GHz (2dBi) omni, detachable	2 x 2.4GHz (1.8dBi) / 5GHz (2.8dBi) omni, detachable	
	Antenna diversity mode			
	Wi-Fi certified			
	(W x D x H)	12.5 x 9.8 x 2.5 cm / 4.9 x 3.8 x 1 in	17.85 x 10.8 x 3 cm / 7 x 4.3 x 1.2 in	21.2 x 5.7 x 18.3 cm / 8.4 x 2.2 x 7.2 in
IMENSIONS	Weight	.15 kg / .3 lb	.23 kg / .5 lb	1.2 kg / 2.7 lb
DEAL ENVIRONMENT	9	» Small business (SMB)	» Enterprise	» WISP, enterprise
		Sittal Sabillood (OHD)	- Endiphoo	
		» Intranet / Internet access	» Intranet access	» WLL
NIOTOMEDIO MEEDO			» Indoor wireless bridge	» Hotspot
CUSTOMER'S NEEDS		» Indoor wireless bridge	» Hotspot access	» Outdoor wireless bridge

58 | Allied Telesis Product Catalog

Wireless









CPE AND	BRIDGES	HIGH-SPEEI	D MOBILITY
AT-WR4541a	AT-WR4541g	AT-WR4652	AT-WR4662
» Wall mountable	» Wall mountable	» Desktop	» Wall mountable
» Pole mountable	» Pole mountable	» Portable	» Pole mountable
1 x 10/100TX	1 x 10/100TX	1 x 10/100TX	1 x 10/100TX
		1	
4 :: IEEE 000 44 - //- /-	1 :: IFFF 000 11 - /- /-	2 x USB 2.0	0 : 1555 000 11 - //- /-
1 x IEEE 802.11a/b/g	1 x IEEE 802.11a/b/g	2 x IEEE 802.11a/b/g	2 x IEEE 802.11a/b/g
18vDC passive PoE	18vDC passive PoE	7v ~ 20vDC Indoor	IEEE 802.3af PoE (PD)
Outdoor (IP67) -30°C to 65°C	Outdoor (IP67) -30°C to 65°C	-30°C to 65°C	Outdoor (IP67) -30°C to 65°C
-30 0 to 03 0	-30 0 10 03 0	-30 0 10 03 0	-30 0 to 03 0
HTTP, HTTPS	HTTP, HTTPS		
MAC Telnet, Telnet, SSH	MAC Telnet, Telnet, SSH	SSH	SSH
v1, v2c, v3	v1, v2c, v3	v1, v2c	v1, v2c
-			
STP, RSTP, LACP, VRRP	STP, RSTP, LACP, VRRP	VRRP	VRRP
		*	*
DEC ADEC ACC		DEC ADEC ACC	
DES, 3DES, AES	DES, 3DES, AES	DES, 3DES, AES	DES, 3DES, AES
-	-	_	•
•	•		
•		.	
•	•	•	•
•		•	•
•		•	•
•			
•			
•	•	=	•
		•	
Static routing, OSPFv2, RIPv1, RIPv2	Static routing, OSPFv2, RIPv1, RIPv2	Static routing, OSPFv2, RIPv1, RIPv2, HSMIP	Static routing, OSPFv2, RIPv1, RIPv2, HSMIP
PIM, IGMP	PIM, IGMP	PIM, IGMP	PIM, IGMP
		-	
Access point, station	Access point, station	Access point, station	Access point, station
Access point, station	Access point, station	Access point, station	Access point, station
_	_		
		*	*
•	•	*	*
128	128	16	16
•		•	•
•		•	•
1 x 5GHz (15dBi) sector, embedded	1 x 2.4GHz (11dBi) sector, embedded		
-			
10.0 11.0 0 11.0 0 11.0 0 1	40.0 0.0 40 45.0 4.0.0	44.040.00	04.0 5.7 40.0 40.4 0.0 70.1
13.3 x 8.6 x 16 cm / 5.2 x 3.4 x 6.3 in	13.3 x 8.6 x 16 cm / 5.2 x 3.4 x 6.3 in	11.3 x 16.3 x 3 cm / 4.5 x 6.4 x 1.2 in	21.2 x 5.7 x 18.3 cm / 8.4 x 2.2 x 7.2 in
.5 kg / 1 lb	.5 kg / 1 lb » WISP, enterprise	.5 kg / 1 lb	1.2 kg / 2.7 lb
» WISP, enterprise	» wior, enterprise	» ITS	» WISP, ITS
» WLL » Outdoor wireless bridge	» WLL » Outdoor wireless bridge	» Vehicle-to-infrastructure communication	 » WLL » Hotspot » Outdoor wireless bridge » Vehicle-to-infrastructure communication

^{*} Feature available on next release



Wireless PoE Accessories





PoE MODE

A: feeding and receiving power on data pairs. B: feeding and receiving power on spare pairs.

PSE

Power Sourcing Equipment. Feeding power to a Powered Device.

PD

Powered Device. Receiving power from Power Sourcing Equipment.

WMM

Wireless Multimedia is a Wi-Fi Alliance interoperability certification that provides basic Quality of Service (QoS) to applications running over Wi-Fi.

WISP

Wireless Internet Service Provider.

		PSE PoE	PD PoE
SUBCATEGORY	FEATURE	AT-6101G	AT-6102G
FORM FACTOR		» Desktop	» Wall mountable » Desktop
PORTS AND MEDIA	10/100/1000T	1	1
POWER SUPPLY	PSU type	Fixed internal	PoE
IEEE 802.3af		•	•
	PoE-enabled ports	1	1
POWER OVER ETHERNET	Max number of full power ports	1	1
	Mode	В	A or B
	PoE power (W)	15.4	10
	DC out (V)		5/7.5/9/12
ENVIRONMENTAL	Cooling	Fanless	Fanless
MANAGEMENT		Unmanaged	Unmanaged
	(W x D x H)	11.7 x 6 x 3.6 cm	8 x 5.6 x 2.6 cm
DIMENSIONS	(WXDXH)	4.6 x 2.4 x 1.4 in	3.1 x 2.2 x 1.02 in
	Weight	.18 kg / .4 lb	.08 kg / .18 lb
CUSTOMER'S NEEDS		» Feeding protected Power over Ethernet to any Fast and Gigabit Ethernet equipment without having to replace non PoE switches	» Makes any non PoE equipment up to Gigabit Ethernet speed PoE capable » Extract power from a PoE line and supply 5 / 7.5 / 9 or 12vDC to any equipment











		WALLMOUNT	COAX CABLES				
SUBCATEGORY	FEATURE	AT-WR4501	AT-TQ0001	AT-TQ0003	AT-TQ0041	AT-TQ0045	
ENVIRONMENTAL	Indoor / outdoor usage	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	
ANTENNA / CABLE TYPE			HDF200	HDF200	HDF400	HDF400	
ANTENNA GAIN (dBi)	@ 2.4GHz						
ANTENNA GAIN (UDI)	@ 5GHz						
INSERTION LOSS (dB)	@ 2.4GHz		-0.5	-1.7	-0.3	-1.2	
INSENTION LOSS (UB)	@ 5GHz		-0.7	-2.7	-0.5	-2.1	
CONNECTOR			1 x N plug 1 x RP-SMA plug	1 x N plug 1 x RP-SMA plug	2 x N plug	2 x N plug	
	AT-WR4541a / AT-WR4541g					•	
COMPATIBLE EQUIPMENT	AT-WR4652						
	AT-WR4562 / AT-WR4662						
DIMENSIONS	(W x D x H) / Length	18.9 x 8.9 x 3.7 cm 7.4 x 3.5 x 1.5 in	.5 m 1ft 7.7 in	3 m 9 ft 10 in	.5 m 1 ft 7.7 in	5 m 16 ft 4.9 in	
	Weight	.48 kg / 1.06 lb	.10 kg / .22 lb	.20 kg / .44 lb	.12 kg / .26 lb	.6 kg / 1.32 lb	
IDEAL ENVIRONMENT		» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	
CUSTOMER'S NEEDS		» Wall-mount	» Higher gain or directional antenna	» Higher gain or directional antenna	» External antenna	» External antenna	

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WINBOX

An application that can be run on Microsoft Windows, Mac OS X and Linux and provides a GUI for configuring and monitoring every aspect of the WR4500 Series wireless router.

CLIENT (STA) MODE

The equipment's wireless interface can be configured to operate as a wireless client connecting to any other access points.

IEEE 802.11f (IAPP)

Inter Access Point Protocol. A protocol for simplifying and speeding up roaming between two access points.

WLL

Wireless Local Loop. Defines the wireless access of customer's premises to the Telco operator network.

TDMA

Time Division Multiple Access. Is a QoS mechanism at the physical layer that allows the static assignment of predefined time slots to every station in a Wireless Access Network.

FULL HOTSPOT

The equipment is able to implement a full-featured hotspot system including wireless access, Web page management, multiple virtual hotspots on a single radio interface, RADIUS server and customer's profile management application.

		WIRELESS NICS		
SUBCATEGORY	FEATURE	AT-WNP300N	AT-WNU300N	
BUS TYPE	·	PCI 2.2 (full and low-profile bracket)	USB 2.0	
PORTS AND Media Support	Wireless radio	IEEE 802.11b/g/n (1T2R MIMO : 150Mbps)	IEEE 802.11b/g/n (2T2R MIMO : 300Mbps)	
ENVIRONMENTAL	Temperature range	0°C to 45°C	0°C to 45°C	
	IEEE 802.11e (QoS)	WMM only	WMM only	
	IEEE 802.11i (security)	•		
	IEEE 802.1x supplicant	•		
WIRFI FSS AND	WEP (bits)	64 / 128	64 / 128	
SECURITY	WPA-EAP, WPA-PSK	•		
	WPA2-EAP, WPA2-PSK	•		
	Wireless Protected Setup (WPS)	•		
	Dynamic data rate scaling	•		
	Antenna	2 x 2.4GHz (2dBi) omni, detachable	Embedded	
DIAGNOSTIC LEDS				
	Windows 2000	-		
DRIVER SUPPORT	Windows XP	•		
DRIVER SUPPURI	Windows Vista	•		
	Windows 7	Via NDIS wrapper	Via NDIS wrapper	
CERTIFICATIONS	WHQL	•		
CENTIFICATIONS	Wi-Fi Alliance	•		
DIMENSIONS	(W x D x H)	12 x 6.3 cm 4.72 x 2.48 in	7.75 x 2.15 x 1.08 cm 3.05 x .85 x .43 in	
	Weight	52 q / .1 lb	12 g / .026 lb	

Wireless Accessories













CAT5 C	ABLES	ANTENNA	RF SPLITTERS		SURGE PROTECTOR	
AT-TQ0051	AT-TQ0053	AT-TQ0500	AT-TQ0292	AT-TQ0592	AT-TQ0591	
Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	
CAT5 UTP	CAT5 UTP	Omni				
		2				
		5				
			-0.6	-0.5	-1.5	
				-0.5	-1.5	
1 x RJ-45 plug 1 x waterproof RJ-45 plug	1 x RJ-45 plug 1 x waterproof RJ-45 plug	1 x N plug	3 x N socket	3 x N socket	1 x N plug 1 x N socket	
•	•	•	•	•		
				•		
•	•	•	•	•		
10 m	30 m	2.2 x 2.2 x 19 cm	7.7 x 5.5 x 4.2 cm	8 x 3 x 8 cm	6.5 x 3.4 x 2.5 cm	
32 ft 9.6 in	98 ft 5.1 in	.9 x .9 x 7.5 in	3 x 2.2 x 1.7 in	3.1 x 1.2 x 3.1 in	2.6 x 1.3 x 1 in	
.5 kg / 1.10 lb	1.5 kg / 3.31 lb	.07 kg / .15 lb	.33 kg / .72 lb	.33 kg / .72 lb	.14 kg / .31 lb	
» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	» WISP, enterprise	
» Achieve IP67 protection level for WR4500 Series equipment		» Hotspot » AP	» Two antennas on one radio I/F	» Two antennas on one radio I/F	» Equipment lightning protection	

Wireless Antennas

ANTENNA	GAIN (dBi)	ALLIED TELESIS TenQ ANTENNA MODEL		LOBE WIDTH (°)		POLARIZATION
TYPE		2.4GHz	5GHz	Horizontal	Vertical	
	2	AT-TQ0500		360	45	vertical
OMNI	5		AT-TQ0500	360	30	vertical
UWINI	8	AT-TQ0201E	AT-TQ0501E	360	17	vertical
	12	AT-TQ0202E	AT-TQ0502E	360	5	vertical
	8	AT-TQ0221E	AT-TQ0521E	75	50	vertical / horizontal
PANEL	15	AT-TQ0222E	AT-TQ0522E	30	30	vertical / horizontal
	20	AT-TQ0223E	AT-TQ0523E	15	15	vertical / horizontal
	12	AT-TQ0241E	AT-TQ0541E	120	15	vertical
SECTOR	14	AT-TQ0242E	AT-TQ0542E	60	15	vertical
	18	AT-TQ0243E		30	15	vertical
	19	AT-TQ0261E		15	15	vertical
PARABOLIC	23		AT-TQ0561E	7.5	7.5	vertical
PANABULIG	24	AT-TQ0262E		8	8	vertical
	27.5		AT-TQ0562E	5.2	5.2	vertical

Antenna Types



0mni

Omnidirectional antennas radiate power uniformly in every direction on the horizontal plane. Most access points and client devices have omnidirectional antennas.



Panel

A flat antenna with a radiation lobe similar to a cone. It is directional and is normally used for point-to-point links or at the end-points of a point-to-multipoint network.



Sector

A flat antenna with a radiation lobe similar to a cone with an elliptical footprint. It is directional and is normally used in the central site of a point-to-multipoint network.



Parabolic

A dish-shaped, directional antenna with a radiation lobe similar to that of a panel antenna. It is usually larger than a panel and has a higher gain. Parabolic antennas are suitable for long distance point-to-point links.

Gain

Gain expresses how much an antenna enhances its transmitted and received signals relative to a simple dipole. Gain is expressed in dB and is logarithmic.

Polarization

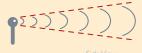
Defines the position in space of electrical and magnetic fields. The best signal transfer happens when both transmitting and receiving antennas have the same polarization. A 90° difference in polarization between transmitting and receiving antennas may produce up to -30dB of signal attenuation.

Loss

Loss is the attenuation, or reduction in power, of a system, expressed in dB. All cables and connector devices have a loss variable and must be considered when designing a wireless system, especially when directional antennas are used.



HIGH GAIN



An omnidirectional antenna concentrates the signal in a 360° belt around it. The higher the gain, the thinner the belt, resulting in a better signal far from the antenna — but a narrower communication area.

Panel and parabolic antennas have a nearly circular footprint. Low gain panels can be used for both short distance point-to-point and point-to-multipoint links as well as straight roads coverage. High-gain panel and parabolic antennas

produce such a small spot that they should be deployed only in medium- to long-distance point-to-point links.

A sector antenna footprint is a horizontal ellipse with a width of 30°, 60°, 90° or 120°. High gain sector antennas have a vertically thinner footprint while keeping the same horizontal width, suited for the central site of a point-to-multipoint link or coverage of a certain "sector" in mobile networks.

Network Management Software

alliedtelesis.com/nms

It's a complex job to administer a network — it often seems you need to be in two places at once. Rapid trouble resolution and the ability to monitor network performance is critical for your business. One size does not fit all when it comes to network management. Everything depends on your network and your needs. Our network management software tools can help you visualize and plan for network growth while maintaining the health and performance of your network.

AlliedView NMS Enterprise Edition

NETWORK DEVICE MANAGEMENT SOFTWARE

AlliedView NMS Enterprise Edition is a comprehensive management platform designed to offer enterprise customers powerful tools for the management of their Allied Telesis products as well as third-party switches. AlliedView NMS maximizes the operational efficiency by providing proactive management and diagnostics, reducing operational expense and shortening tasks involved with network administration.

Low-cost Deployment

AlliedView NMS Enterprise Edition is based on the Service Provider version, and designed to operate on a Windowsbased machine running XP or Server 2003/8/10. With a tiered approach to licensing, users can deploy AlliedView NMS on even the smallest size networks in a cost-effective manner and scale to thousands of network elements.

Network Inventory

AlliedView NMS Enterprise Edition provides automatic topology and device discovery of networks. AlliedView NMS allows for multiple network and device views where the user can observe the entire network or focus in on an individual network device. In addition, AlliedView NMS contains an inventory of different device types and enables views of VLANs, network interfaces, ports and physical links.



Flexible Configuration

The extensive management capabilities of AlliedView NMS Enterprise Edition allow the user to manage thousands of Allied Telesis network elements, all configured from a central location. Products can be easily configured for both Layer 2 and Layer 3 functionality, VLANs, and resilient EPSR and LACP trunks.

Network Upgrades

AlliedView NMS performs scheduled or on-demand network-wide firmware and software upgrades to Allied Telesis and third-party network elements.

AlliedView NMS maintains control of software releases to ensure all elements in your network maintain the latest available software.

Features

- » Intuitive graphical interface
- » Network-wide management
- » Network backup/restore
- » Network software management
- » MIB browser
- » GUI snapshot utility
- » RMON 4 group support
- » NMS alarms with e-mail notifications
- » SNMP vI, v2c and v3
- » Secure SSH management
- » Network VLAN management
- » QoS management
- » Windows OS server support
- » Remote Java and Web clients
- » Manages Allied Telesis and third party elements

Network Management

AlliedView NMS Service Provider Edition

NETWORK MANAGEMENT SOFTWARE

AlliedView NMS provides a unified management platform for network, element and service management for every type of service provider and enterprise network. AlliedView NMS supports more than 200 different Allied Telesis products, including switches, routers, multiservice access and fiber-or copper-based gateways.

AlliedView NMS incorporates user interfaces that are efficient as well as operator friendly to take the complexity out of performing routine tasks. The Command Line Interface (CLI) used for provisioning and element management is based on a format widely used and recognized in the industry. It is combined with an intuitive GUI for diagnostics, network mapping and alarm reporting among other features which offer the operator an easy-to-understand means of displaying and reviewing information.

Features

- » Intuitive graphical interface
- » Drill-down functionality
- » MIB browser
- » MIB compiler
- » GUI snapshot utility
- » RMON 4 group support
- » Supports NMS alarms
- » Supports SNMP vI, v2c and v3
- » VLAN management
- » QoS management
- » Multi-platform
- » HP OpenView, Tivoli NetView, Ipswitch
- » WhatsUp and SNMPc interoperability
- » Supports Allied Telesis managed devices

The scalability of AlliedView NMS offers a wide range of use from medium-sized networks all the way to large service provider networks with thousands of devices and multiple services in the network. This includes support and administrative security for centralized or distributed client-side operations based on its software architecture. The enhanced tools incorporated into AlliedView NMS address the critical need to reduce time and labor to manage the network, and at the same time offer higher levels of customer service through rapid responsiveness.

Scalable Architecture

AlliedView NMS is a Java-based application suite that supports both Java and HTML clients. The core services include a relational database and may be deployed on a dedicated Sun or Windows server or in a virtual server environment. The server supports core functions such as discovery of managed objects, receiving and processing alarm information and notifications, data collection, report generation, status polling and northbound interfaces. All updates relative to the database are processed through the server.

The server software also supports distributed user clients, and provides scalability in terms of the number of clients that can be concurrently supported. The distributed clients act as the user interfaces between the end-users or administrators and the AlliedView NMS server: Client support comprises the following functions:

- » Interfaces with the clients and channels all of their transactions to the server applications
- » Generates the user view of the network through database operations
- » Generates alarms and autonomous messaging from the server database to the clients

Auto-Discovery Features

AlliedView NMS performs active autodiscovery of every network element whenever a new element or device is added to the network. Auto-discovery features go beyond merely capturing hardware inventory populated in the network, to providing detailed network topology and configuration information.

If a new network element, iMG or port is added to the network, auto-discovery provides the operator automated information and updates for inventory and configuration management. This allows the network to be maintained at a "current state," also eliminating any

64 | Allied Telesis Product Catalog



need to manually enter information when changes occur.

Network Mapping

AlliedView NMS provides the ability to create and maintain a logical network map, including sites and locations where each piece of equipment resides, and to actually create an overlay of the network on a geographic network map.

Network Topology

Auto-discovery allows the operator to create and view the actual topology of the network, including Layer 2 and 3 network, VLANs, EPSR rings (domains), physical nodes, physical cards (network interfaces and ports), terminal devices (iMGs) and physical links.

Zero Touch Service Provisioning

Allied Telesis has streamlined the provisioning process through its "one-touch provisioning" feature in AlliedView NMS. Each type of service, as well as port or link, can be assigned its own profile using configuration data that matches the requirement. Once done, the profile can be applied to each subscriber line, port or link in a single keystroke rather than having to re-enter

the same data over and over again. In a large service network with large numbers of subscribers, the time savings are tremendous, as is the reduction in configuration errors that sometimes occur.

The other key benefit in a service network where revenue generation is critical is in rapid service deployment and turn up. New subscribers can be added quickly and activated, thereby increasing revenues as well as providing a higher level of customer service.

In addition to auto- or bulk-provisioning the service VLANs using a defined service profile, the same procedure could be applied to the uplink or port for applying configuration and QoS parameters. Auto-configuring enables new nodes to be added and turned up quickly, and likewise new line cards or modules added to existing nodes. At the same time, it ensures conformity in the provisioning of the network configuration — eliminating the problems that sometimes occur when a new piece of equipment is added to the networks and configured incorrectly.

Network Upgrades

AlliedView NMS allows software and firmware upgrades to be made network-wide on either a scheduled or unscheduled basis, as the network operator requires. Since AlliedView NMS maintains an up-to-date inventory of all the equipment in the network as well as release level of the software and firmware, it becomes the tool to manage periodic upgrades.

Northbound Interface

AlliedView NMS can be integrated with existing Operation Support Systems (OSS) and Business Support Systems (BSS) through a Web services-based northbound interface. This enables the automation of service activations, changes and deactivations to be done on the higher level OSS/BSS systems and flow through to the Allied Telesis network elements.

ADSL24AE	32	AT-8100S/24	11	AT-FS705L	14
ADSL24B	32	AT-8100S/24C	11	AT-FS705LE	14
ADSL24SA	32	AT-8100S/24F-Bidi	11	AT-FS708	14
ADSL48A	32	AT-8100S/24F-LC	11	AT-FS708LE	14
ADSL48B	33	AT-8100S/24P0E+	11	AT-FS708/P0E	15, 18
AlliedView NMS Enterprise Edition	63	AT-8100S/48	11	AT-FS709FC	15
AlliedView NMS Service Provider Edition	64	AT-8100S/48P0E+	11	AT-FS716L	15
AT-2451FTX	49	AT-8516F/SC	21	AT-FS717FC	15
AT-2701FTX	49	AT-8624P0E-V2	19, 21	AT-FS724L	15
AT-2701FX	51	AT-8624T/2M-V2	21	AT-FS750/16	16
AT-2701LX20	51	AT-8648T/2SP	21	AT-FS750/24	16
AT-2711FX	51	AT-9000/28	22	AT-FS750/24P0E	16, 18
AT-2712FX	51	AT-9000/28SP	22	AT-FS750/48	16
AT-2712LX20	51	AT-9000/52	22	AT-G8LX10	45
AT-2716FX/TP	49	AT-9924SP	25	AT-G8SX	44
AT-2746FX	51	AT-9924T	25	AT-G8T	44
AT-2814FX	48	AT-AR415S	54	AT-GS900/5E	15
AT-2872SX	48	AT-AR440S	55	AT-GS900/8	15
AT-2911LX	50	AT-AR441S	55	AT-GS900/8E	15
AT-2911SX	50	AT-AR442S	55	AT-GS900/16	15
AT-2912T	49	AT-AR750S	54	AT-GS900/24	15
AT-2916LX10	50	AT-AR770S	55	AT-GS950/8	17
AT-2916SX	50	AT-CM3K0S	41	AT-GS950/8P0E	17, 18
AT-2931SX	50	AT-CM70S	41	AT-GS950/16	17
AT-2972SX	52	AT-CM301	41	AT-GS950/24	17
AT-2972LX10	52	AT-CM302	41	AT-GS950/48	17
AT-2973SX	52	AT-CV1KSS	41	AT-GS2002/SP	39
AT-2973T	52	AT-CV5M02	41	AT-iBG915FX	35
AT-2973T/4	52	AT-CV1000	41	AT-iMG606BD	34
AT-6101G	60	AT-CV1200PSU	41	AT-iMG616W	34
AT-6102G	60	AT-CV1203	41	AT-iMG624A	34
AT-8000/8P0E	18, 20	AT-CV5001	41	AT-iMG646BD	34
AT-8000GS/24	23	AT-CV5001AC-60	41	AT-iMG726BD	35
AT-8000GS/24P0E	19, 23	AT-CV5001DC-80	41	AT-iMG726MOD	35
AT-8000GS/48	23	AT-DINRAIL	40	AT-iMG746MOD	35
AT-8000S/16	20	AT-FS201	39	AT-iMG1505	35
AT-8000S/24	20	AT-FS202	39	AT-iMG1525	35
AT-8000S/24P0E	18, 20	AT-FS232	39	AT-iMG1525RF	35
AT-8000S/48	20	AT-FS232/1	39	AT-iMG2504	35
AT-8000S/48P0E	19, 20	AT-FS232/2	39	AT-iMG2524	35
AT-8100L/8	10	AT-FS238A/1	39	AT-iMG2524H	35
AT-8100L/8P0E	10	AT-FS238B/1	39	AT-MC13	38
AT-8100S/16F8-SC	11	AT-FS705FFC	14	AT-MC101XI	38

AT-MC102XL	38	AT-SP10TW1	45	AT-TN-408	33
AT-MC102XL-PCI	38	AT-SP10TW3	45	AT-TN-409	33
AT-MC102XL-PCle	38	AT-SP10TW7	45	AT-TN-9101/2/3	32
AT-MC103LH	38	AT-SPBD10-13	29, 45	AT-TQ0001	60
AT-MC103XL	38	AT-SPBD10-14	29, 45	AT-TQ0003	60
AT-MC104XL	38	AT-SPEX	29, 44	AT-TQ0041	60
AT-MC115XL	38	AT-SPFX/2	29, 44	AT-TQ0045	60
AT-MC116XL	38	AT-SPFX/15	29, 44	AT-TQ0051	61
AT-MC605	38	AT-SPFXBD-LC-13	29, 44	AT-TQ0053	61
AT-MC606	39	AT-SPFXBD-LC-15	29, 44	AT-TQ0201E	62
AT-MC1004	39	AT-SPLX10	29, 44	AT-TQ0202E	62
AT-MC1008/GB	39	AT-SPLX10/1	45	AT-TQ0221E	62
AT-MC1008/SP	39	AT-SPLX40	29, 45	AT-TQ0222E	62
AT-MCF2000	42	AT-SPSX	29, 44	AT-TQ0223E	62
AT-MCF2012LC	42	AT-SPSX/1	44	AT-TQ0241E	62
AT-MCF2012LC/1	42	AT-SPTX	44	AT-TQ0242E	62
AT-MCF2032SP	42	AT-SPZX80	29, 45	AT-TQ0243E	62
AT-MCF2300	42	AT-TN-102	32	AT-TQ0261E	62
AT-MCPWR	40	AT-TN-107	33	AT-TQ0262E	62
AT-MCR1	40	AT-TN-109	33	AT-TQ0292	61
AT-MCR12	40	AT-TN-117	33	AT-TQ0500	61, 62
AT-PC232/POE	39	AT-TN-118	33	AT-TQ0501E	62
AT-PC2002P0E	39	AT-TN-119	33	AT-TQ0502E	62
AT-PWR250	12	AT-TN-123	32	AT-TQ0521E	62
AT-PWR800	12	AT-TN-124	32	AT-TQ0522E	62
AT-PWR1200	12	AT-TN-125	33	AT-TQ0523E	62
AT-RPS3000	12	AT-TN-127	33	AT-TQ0541E	62
AT-SBx31CFC	29	AT-TN-128	33	AT-TQ0542E	62
AT-SBx31FAN	29	AT-TN-129	32	AT-TQ0561E	62
AT-SBx31GP24	29	AT-TN-130	33	AT-TQ0562E	62
AT-SBx31GS24	29	AT-TN-131	32	AT-TQ0591	61
AT-SBx31XZ4	29	AT-TN-132	33	AT-TQ0592	61
AT-SBx908	25, 26	AT-TN-136	32	AT-TQ2403	58
AT-SBx3112	28	AT-TN-139	33	AT-Tray1	40
AT-SBx3112-8XR	28	AT-TN-140	32	AT-Tray4	40
AT-SBx3112-96P0E+	28	AT-TN-142	33	AT-VNC10S	52
AT-SBx3161	29	AT-TN-143	32	AT-WLMT	40
AT-SBx3165	29	AT-TN-144	33	AT-WNP300N	61
AT-SP10ER40/1	45	AT-TN-145	32	AT-WNU300N	61
AT-SP10LR	45	AT-TN-250G	32	AT-WR2304N	58
AT-SP10LR/1	45	AT-TN-253G	32	AT-WR4501	60
AT-SP10LR20/1	45	AT-TN-401	33	AT-WR4541a	59
AT-SP10SR	45	AT-TN-407	33	AT-WR4541a	59

AT-WR4562	59	AT-XPSR	27, 29, 45	NTE8	33
AT-WR4652	59	CES8	33	Optical Modules	44
AT-WR4662	59	CFC12	33	PAC24	32
AT-x6EM/XS2	12	CFC24	33	PAC24C	32
AT-x600-24Ts	24	CFC56	33	PAC24EU	32
AT-x600-24Ts-P0E	19, 24	CFC100	33	POTS24C	32
AT-x600-24Ts-P0E+	19, 24	Converteon	41	Professional Services	6
AT-x600-24Ts/XP	24, 26	FE10	32	Routers	54
AT-x600-48Ts	24	FX10BX	32	SHDSL24	33
AT-x600-48Ts/XP	24, 26	FX10LX	32	Star Partner Program	7
AT-x610-24SPs/X	13	FX20BX	32	Support	4
AT-x610-24Ts	13	FX20BX40	32	SwitchBlade x908	27
AT-x610-24Ts-P0E	13	GE8	32	SwitchBlade x3112	28
AT-x610-24Ts/X	13	GE24BX	32	Switches, 10 Gigabit	26
AT-x610-24Ts/X-P0E	13	GEPON	32	Switches, Fast Ethernet	20
AT-x610-48Ts	13	iMAP 9700	32	Switches, Gigabit Aggregation/Core	24
AT-x610-48Ts-P0E+	13	iMAP 9810	32	Switches, Gigabit Edge	22
AT-x610-48Ts/X	13	iMAP Blades	32	Switches, Power over Ethernet	18
AT-x610-48Ts/X-P0E+	13	iMAP Chassis	32	Switches, Unmanaged	14
AT-x900-12XT/S	25, 26	iMAP Controller Cards	33	Switches, WebSmart	16
AT-x900-24XS	25, 26	iMG616 Series	34	Training	5
AT-x900-24XT	25, 26	iMG616RF Series	34	VDSL24A	33
AT-x900-48FE	21	iMG634 Series	34	VDSL24B	33
AT-x900-48FS	21	iMG634W Series	34	Wireless Accessories	61
AT-XEM-1XP	27	Media Converters, Mounting H	ardware40	Wireless Access Points and Routers	58
AT-XEM-2XP	27	Media Converters, Standalone	38	Wireless Antennas	62
AT-XEM-12S	27	MiniMAP 9100	32	Wireless Base Stations	58
AT-XEM-12T	27	Network Management Softwar	re63	Wireless CPE and Bridges	58
AT-XEM-STK	27	NICs, Copper Desktop/Workst	ation49	Wireless High-Speed Mobility	58
AT-XPER40	27, 29, 45	NICs, Fiber Desktop/Workstati	on50	Wireless NICs	61
AT-XPER80	27, 29, 45	NICs, Laptop	48	Wireless PoE	60
AT-XPLR	27, 29, 45	NICs. Server	52		

68 | Allied Telesis Product Catalog



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